

BUDGET INCREASE REQUEST

For

Budget Year

FY 2011

prepared by

UDOT

Maintenance Planning Division
4501 South 2700 West
Salt Lake City, Utah 84114
801-965-4116

August 11, 2009

SUMMARY

SUMMARY

UDOT statewide maintenance budget increase request for FY 2011 is **\$17,518,700**

Detailed information follows:

Note: All features added this year should be added to our total backlog of 98 FTEs which have been accumulated over the last six years.

FEATURES INCREASE (For other than South Salt Lake County / North Utah County).

Capacity projects, congestion mitigation projects, reconstruction, new construction, and betterment projects add new features that require maintenance. Even new roads include signs that get damaged, markings that require repainting, surface areas that need snow removal, etc. The increase in features requires a budget increase to maintain the same level of service as delivered to existing roads.

<u>Region</u>	<u>Lane-Miles/Surface Areas</u>	<u>FTE Needs</u>	<u>Amount</u>
Region One	56	1.87	\$297,200
Region Two	132	4.40	\$1,203,100
Region Three	33	1.10	\$202,300
Region Four	44	1.47	\$353,300
Total	265	8.84	\$2,055,900

REGION TWO - SOUTH SALT LAKE COUNTY

Capacity projects, congestion mitigation projects, reconstruction, new construction, and betterment projects add new features that require maintenance. Even new roads include signs that get damaged, markings that require repainting, surface areas that need snow removal, etc. Increased features require a budget increase to maintain the same level of service as delivered to existing roads.

On-going Annual Cost	Description	Amount
Added Features	75 Lane Miles	\$ 607, 000
One-Time Costs		
New Facilities		
Start-up cost of \$540,000 will be needed when a new station is added	Small Tools, Equipment, Supplies, Furnishings, Safety Supplies and Clothing, Traffic Control Devices, IT Equipment	
Trucks and Snow Plows	Ten-Wheel Dump truck, Plow & Spreader – 3 each	<u>\$ 600,000</u>
TOTAL REQUEST		\$1,207,000
FTE Positions		3

REGION THREE - PIONEER CROSSING / REDWOOD ROAD

Capacity projects, congestion mitigation projects, reconstruction, new construction, and betterment projects add new features that require maintenance. Even new roads include signs that get damaged, markings that require repainting, surface areas that need snow removal, etc. Increased features require a budget increase to maintain the same level of service as delivered to existing roads.

On-going Annual Cost	Description	Amount
Added Features	115 Lane Miles	\$ 606,500
One-Time Costs		
New Facilities	Saratoga Maintenance Station American Fork Maintenance Station	\$3,000,000
Start-up Costs	Small Tools, Equipment, Supplies, Furnishings, Safety Supplies and Clothing, Traffic Control Devices, IT Equipment, Mobile Equipment	\$ 1,700,000
Trucks and Snow Plows	Truck and Snow Plow with Spreader – 4 each	\$ 800,000
TOTAL REQUEST		\$6,106,500
FTE Positions		4

TRAFFIC SIGN RETROREFLECTIVITY COMPLIANCE

FHWA published a new “**Maintaining Sign Retroreflectivity**” rule effective Jan. 22, 2008, as a supplement to the *Manual on Uniform Traffic Control Devices (MUTCD)*. UDOT must establish and implement a sign assessment or management method to maintain minimum levels of sign retroreflectivity by January 2012. The cost to replace all currently installed sign faces would be \$17,800,000. By evaluating each sign and replacing those that do not meet the new standard, the cost to comply with federal rule for surface mount signs by January 1, 2015, will be \$5,000,000. The cost to comply with overhead sign retroreflectivity or illumination by January 1, 2018, will be \$2,400,000. After 2018 \$250,000 additional annual funding will be needed to replace sign faces that fall below MUTCD standards. This request details how UDOT will manage sign retroreflectivity. This need is ongoing and estimated amount is \$700,000.

Fiscal Year	Activity	Amount
FY2011	Inventory, Assessment, Prepare Sign Replacement Maintenance Method, Begin Ground-mounted Sign Replacement	\$700,000

TOWPLOW DEPLOYMENT

UDOT successfully tested a Viking-Cives Tow Plow during the winter of 2008-2009. The additional plow width enabled one operator to plow about 75% more than a single plow truck with a wing blade. No new trucks are needed to accommodate the tow plows, as existing trucks will be equipped to handle the new Tow Plows. Each Tow Plow will increase snow clearing capacity. This increased capacity will result in reducing the FTE backlog by eight FTEs. Estimated one-time equipment purchase is:

10 TowPlow unit @ \$110,000 each	\$1,100,000
10 modified plow truck packages @ \$15,000 each	<u>\$150,000</u>
Total request	\$1,250,000

CULVERT MANAGEMENT

Research conducted by the Hydraulics Division, Research Division and Asset Management Division during the last six years demonstrated that many culverts throughout the state are approaching or beyond their design life or are near the end of their useful life due to corrosion, decay, pipe misalignment and other failures. This request establishes a proactive culvert service life extension program (SLEP). The cost of the request for equipment, completing a statewide condition inventory and correcting the top priority deficient culverts is:

Total cost	\$700,000
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LANDS AND BUILDINGS

We are asking for a \$2.2 million capital development project this year to build a new station in Kamas. The cost of this project will be offset by the unobligated funds from Hurricane project and the sale of the property from Panguich, Hurricane and the existing Kamas station.

UNFUNDED FY2010 FEATURES INCREASE

<u>Region</u>	<u>Lane-Miles/Surface Areas</u>	<u>FTE Needs</u>	<u>Amount</u>
Statewide	609	21	\$4,000,600

UNFUNDED FY2010 RETENTION BASIN (ENVIRONMENTAL COMPLIANCE)

UDOT built asphalt-lined retention ponds at its maintenance stations to prevent salt-rich runoff from escaping our facilities. Our program was found noncompliant by State Division of Environmental Quality. The basins need to be modified to meet DEQ requirements or be replaced with self-contained brine making equipment and storage tanks.

Replace brine-making system 14 locations X \$28,000	\$100,000
Rebuild basins six locations X \$20,000	\$120,000
Repair basins six locations X \$9,000	<u>\$ 54,000</u>
Total costs	\$566,000
Three year remediation program (FY 09 to 11)	\$188,700
This was funded for FY 09 but was unfunded for FY 10.	
Remaining two years remediation program (FY 11 and 12)	\$188,700

UNFUNDED FY2010 TRAFFIC CONTROL (Work Zone Device Replacement)

UDOT changed the work zone sign and traffic control device standard for work zone on January 1, 2008. The change included retroreflectorization of all devices and a higher intensity retroreflective sheeting for all work zone signs and traffic control devices such as cones and barrels. Work zone traffic control signs are also required to meet the MUTCD Retroreflectivity standard which went into effect January 22, 2008. Funding request is based on actual on-hand inventory of work zone traffic control devices.

Statewide needs	\$1,310,000
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Me

TOTAL

[illegible]

343.2

8

[illegible]

6

2011

IT 2002 Reimbursement FFLE's

2056 W

FEATURES INCREASE

Features Increase

Capacity projects, congestion mitigation projects, reconstruction, new construction, and betterment projects add new features that require maintenance. Even new roads include signs that get damaged, markings that require repainting, surface areas that need snow removal, etc. Increased features require budget increase to maintain the same level of service as delivered to existing roads.

Region/District	Lane-Miles/Surface Areas	Amount
Region One	56	\$ 297,200
Region Two	132	\$1,203,100
Region Three	33	\$ 202,300
Region 4	44	\$ 353,300
Total Increase	265	\$ 2,056,000


Mountain View, Pioneer Crossing, 2100 North, 10400 South, 11400 South, Redwood Road, SR-77, SR-92, I-15 CORE are NOT included in these figures



Prepared by: L. Bernhard
Maintenance Planning Division
Phone: 801-243-9624

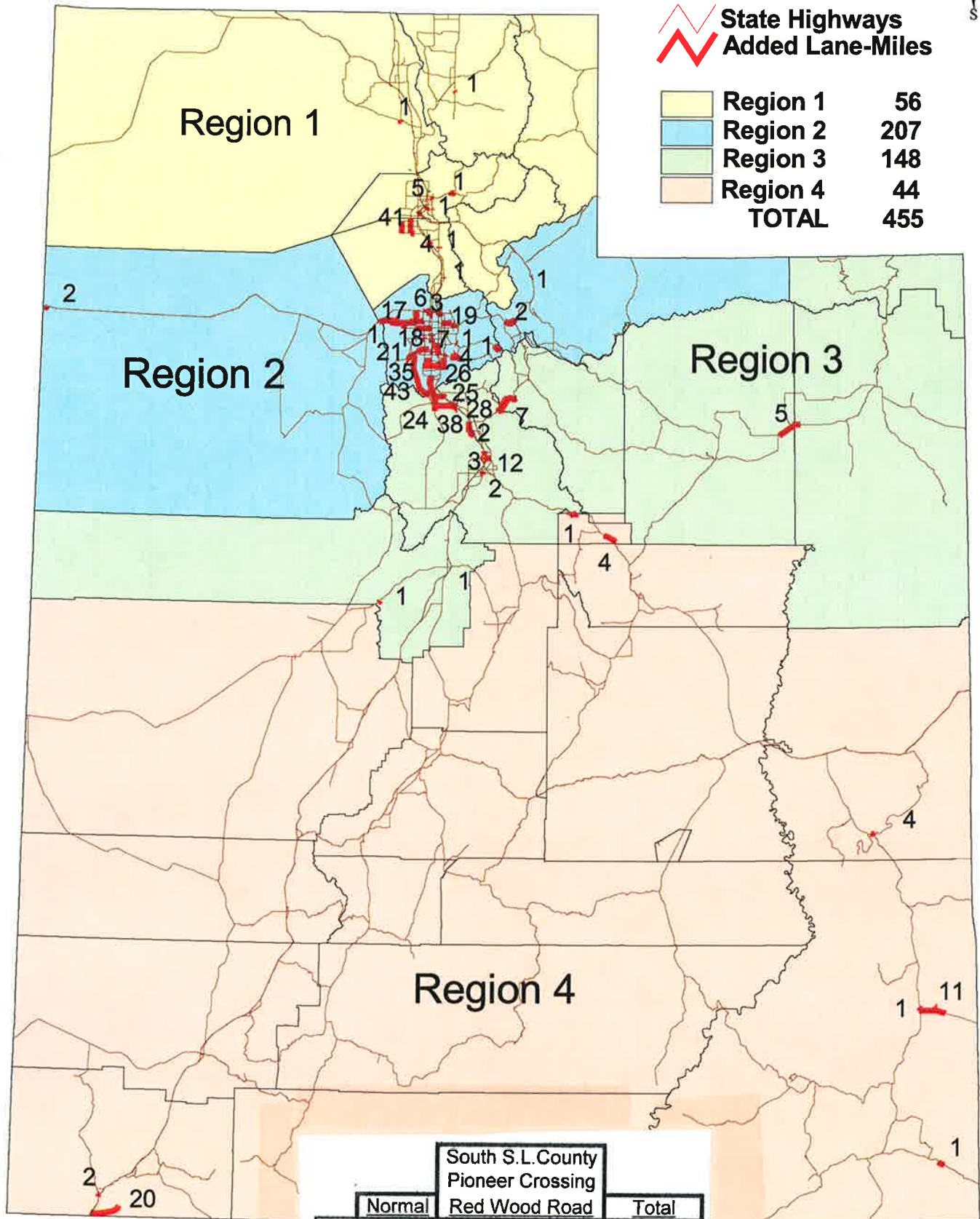
11 Aug 2009

2011 Lane-Mile Increases



 **State Highways
Added Lane-Miles**

	Region 1	56
	Region 2	207
	Region 3	148
	Region 4	44
	TOTAL	455



	South S.L. County Pioneer Crossing Red Wood Road		
	Normal		Total
R1	56	0	56
R2	132	75	207
R3	33	115	148
R4	44	0	44
	265	190	455

REQUEST FOR INCREASE IN FUNDS FOR FY 2011 BUDGET - SUPPORTING DETAIL

Attach additional supporting detail if necessary

Description:	Maintenance Cost Increase due to added features	Priority No. 1
Program Name:	0 <input type="checkbox"/> Check One: Ongoing One-time <input checked="" type="checkbox"/> X	Legislation Needed? No
<i>Provide a three-year history and two-year projection of the workload, caseload, or other measure for this program or service:</i>		
FY 2008 Actual:	FY 2011 Projected Total:	\$2,056,000
FY 2009 Actual:	FY 2012 Projected Total:	
FY 2010 Actual:	FY 2011 Projected % Increase:	

*In the space below, show **computation details** outlining how the requested amount is determined. Include FTE needed & the payroll cost for each; additional space requirements; the types and amounts of equipment and related cost; the number of individuals served by the request and the annual service cost per individual; and similar data for all other expenses.*

Estimated cost increase due to transportation system improvement is calculated by determining the number of additional items requiring maintenance then multiplying by three-year average statewide unit cost to maintain those items during FY2007-2009. FY2009 is the last full reporting year available at the time the estimate was prepared.

No indirect charges were included as it is assumed that station operating costs, such items as utilities, building repair, training, leave, fixed equipment costs, etc, will not increase significantly due to increasing workload

Costs for each type road component, such things as pavement, guardrail, drains, signs, paint striping, are summed for each region and the total estimated cost increased is summed.

For ease of presentation, the number of lane-miles of added pavement was selected to represent the diverse costs going into the total cost. This was done to allow a representative measure of changes rather than requiring the reader to plow through pages of breakouts. Additional features are derived from 258 projects published in the FY2010 Statewide Transportation Improvement Plan, each of which has a potential of 80 classes of additional items requiring maintenance. To present this data in other than a condensed representation would burden the reader.

The increases are presented by region with an accompanying map that shows relative geographic distribution of added pavements.

Individuals served Road users in all twenty nine counties where major and minor projects added roadway features requiring maintenance.

Budget Increase Summary

Financing	FY 2011
General Fund	
School Funds	
Transportation Fund	2,056,000
Federal Funds	
Dedicated Credits	
Restricted Funds	
Transfers (specify)	
Other (specify)	
Beginning Balance	
Total Financing	\$2,056,000

Expenditures	FY 2011
Personal Services	
In-State Travel	
Out-of-State Travel	
Current Expense	2,056,000
DP Current Expense	
DP Capital	
Capital Outlay	
Pass Thru/Other	
Total Expenditures	\$2,056,000
Positions:	

Percentage Increase of Request	
FY2011 Base Budget for this Program	
FY2011 Requested % Increase	0.0%

Department: Transportation**Contact:** Richard Clarke**Line Item/Division:****Phone Number:** 801-965-4120

REQUEST FOR INCREASE IN FUNDS FOR FY 2011 BUDGET

Prepare separate Forms 400 for each budget increase - Attach Form 400A with each Form 400

Description: Culvert Management and Rehabilitation		Priority No. 4
Program Name:	Check One: Ongoing <input checked="" type="checkbox"/> One-time <input type="checkbox"/>	Legislation Needed? NO
<p><i>Please provide a detailed description of this request including the problem or need this request will resolve. (all financial calculations should be included on Form 400A)</i></p> <p>Many culverts throughout the state are approaching or beyond their design life or are near the end of their useful life due to corrosion, decay, pipe misalignment, and other failures. Replacing culverts after failure is an expensive and disruptive process as a road is taken out of service to excavate and then replace the pipe. Culvert lining and other proactive culvert service life extension programs (SLEP) provide an attractive alternative to failure response. Research conducted the Research Division, Asset Management Group and Hydraulics from 2003 to 2009 identified the need for a detailed condition inventory an ongoing culvert remediation, repair or replacement program.</p> <p><i>What changes in program(s), service(s), expenditure(s), fee(s), etc. will be made if this request is not funded?</i></p> <p>Some culverts may continue to deteriorate without detection, only being discovered by pavement settlement, washouts, and similar high cost events.</p> <p><i>Indicate any additional funding above the amount being requested that might be required for this request in future years:</i></p> <p>An ongoing culvert service life extension program is proposed to correct culverts based on a statewide priority list. Continuing evaluation of aging culverts will add to the priority list. The culvert remediation list will be jointly managed by Maintenance Planning Division and Hydraulics Division. Each region will be provided access to the inventory so that top priority culverts can be remediated proactively and so that reconstruction or other construction projects can include appropriate action for existing culverts.</p> <p><i>What are the goal(s), objective(s), and performance measure(s) that directly relate to this request; and how will they be impacted?</i></p>		
<p>Please fill out this section if this request is mandatory (mandatory requests are more likely to be funded)</p> <p><i>What is the authority reference mandating this request? (i.e. federal law, state law, court action, governor's initiative)</i></p> <p><i>Describe why you think this request meets a mandatory definition. (public health and safety requests must constitute an emergency or critical need)</i></p>		

Department:**Transportation****Contact: Richard Clarke****Line Item/Division:****Phone Number: 801 965-4120**

REGION 2 & 3 REQUESTS

Features Increase – Region 2 South Salt Lake County

Capacity projects, congestion mitigation projects, reconstruction, new construction, and betterment projects add new features that require maintenance. Even new roads include signs that get damaged, markings that require repainting, surface areas that need snow removal, etc. Increased features require a budget increase to maintain the same level of service as delivered to existing roads.

On-going Annual Cost	Description	Amount
Added Features	75 Lane Miles	\$ 607, 000
One-Time Costs		
New Facilities		
Start-up Costs	Small Tools, Equipment, Supplies, Furnishings, Safety Supplies and Clothing, Traffic Control Devices, IT Equipment	\$ 540,000
Trucks and Snow Plows	Ten-Wheel Dump truck, Plow & Spreader – 4 each	\$ 800,000
FTE Positions		4

Prepared by: L. Bernhard
Maintenance Planning Division
Phone: 801-243-9624

11 Aug 2009

Labor Requirements

Positions Needed (*See Appendix A*)

FY 2010 - 3 Transportation Technicians

3

Total

3 FTEs

\$242,539

FY 2011 - 4 Transportation Technicians

Total

4 FTEs

\$323,386

Start Up Costs

Equipment (*See Appendix B*)

FY 2010 / 2011

Total

\$1,975,000

Annual Costs

Annual costs would need sufficient funding to pay for items such as: Materials needed (salt, signs, etc), equipment running costs, equipment replacement costs, etc. At this time, there is not sufficient information to determine this overall cost. We would need to have a good idea on the future inventory increases associated with each project, plus know for sure on what equipment would be purchased to determine operating costs, and size of shed for operating costs.

New Facilities

New maintenance shed – costs will depend on size, location, land costs, etc.

Existing Salt Lake County Needs

Costs associated with bring work force up to meet FTE per surface area recommendations. Region 2 – Salt Lake County only, would require an additional 32 FTE's to meet the recommended 25 SA per FTE.

Labor Requirements:

Positions Needed (*See Appendix A*)

Total

32 FTEs

\$2,587,084.80

Equipment Requirements:

Equipment (*See Appendix B*)

Total

\$6,560,000

Existing Conditions (Salt Lake County):

Total Surface Area (12 ft x 1 mile) \Rightarrow 2804 SA

Total Current FTE \Rightarrow 80 FTE

Average SA per FTE \Rightarrow 35 SA

of FTE Needed:

$$2804 \text{ SA} / 25.0 \text{ SA/FTE} = 112.16 \Rightarrow 112 \text{ FTE}$$

of New FTE Needed:

$$112 \text{ FTE Needed} - 80 \text{ Total Current FTE} = \mathbf{32 \text{ additional FTE}}$$

Labor Cost Calculation:

South- West Salt Lake County Major Additions:

FY2010

New Positions \Rightarrow 3

Average Hourly Rate (FY09-10 Projected) \Rightarrow \$36.40

Average Overtime Rate (FY09-10 Projected) \Rightarrow \$40.36

Employee Hours In One Year \Rightarrow 2,088

Average Overtime Hours In One Year \Rightarrow 120

$$\text{Labor Cost} \Rightarrow 3 \{ (\$36.40 \times 2,088) + (\$40.36 \times 120) \} = \mathbf{\$242,539.20}$$

FY2011

New Positions \Rightarrow 4

Average Hourly Rate (FY09-10 Projected) \Rightarrow \$36.40

Average Overtime Rate (FY09-10 Projected) \Rightarrow \$40.36

Employee Hours In One Year \Rightarrow 2,088

Average Overtime Hours In One Year \Rightarrow 120

$$\text{Labor Cost} \Rightarrow 4 \{ (\$36.40 \times 2,088) + (\$40.36 \times 120) \} = \mathbf{\$323,385.60}$$

Existing Conditions:

New Positions \Rightarrow 32

Average Hourly Rate (FY09-10 Projected) \Rightarrow \$36.40

Average Overtime Rate (FY09-10 Projected) \Rightarrow \$40.36

Employee Hours In One Year \Rightarrow 2,088

Average Overtime Hours In One Year \Rightarrow 120

$$\text{Labor Cost} \Rightarrow 32 \{ (\$36.40 \times 2,088) + (\$40.36 \times 120) \} = \mathbf{\$2,587,084.80}$$

7/8/2009

Building Block Request for New Surface Areas in Utah and Salt Lake County

Projects	Region	FY Open	New SA
10400 South	2	FY2010	85
Redwood Road	2	FY2010	19
11400 South (w/ I-15)	2	FY2010	52.5
Mountain View	2	FY2011	72
Redwood Road	3	FY2010	47
SR-77	3	FY2010	0
Pioneer Crossing	3	FY2011	38.0
2100 North	3	FY2011	22.0
SR-92	3	FY2012	38.0
I-15 CORE	3	FY2015	143.0
Total			486.5

FY12 FY11

15.0
48.6
40.6
100.0
32.0
0
38.0
22.0
38.0
143.0
486.5

2
47
38
22
38
145

2.1
6.6
19
52.5
72
150.1

30
\$200,000
\$80,000
\$3,500

Surface Area/ FTE=
Ten Wheeler Cost=
Annual Cost/FTE=
Code 1 Cost/SA=

Fiscal Year	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
Surface Areas per FY	145.5	160	38			143

One Time Costs

Region 2	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	Comments
Fiscal Year							
Ten Wheelers	\$600,000	\$600,000					
Equipment		\$540,000					
Station		\$2,500,000					Mountain View @ 13000 South

Region 3	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	Comments
Fiscal Year							
Ten Wheelers	\$200,000	\$400,000	\$200,000			\$1,000,000	
Equipment		\$760,000			\$1,188,000		
Stations		\$2,000,000			\$2,000,000		1. Saratoga Springs 2. London

Annual Costs

Region 2	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
Beginning Fiscal Year						
# of FTE	3	3				
Personnel Cost	\$240,000	\$240,000				
Code 1	\$364,700	\$350,000				

Total Request

Region 3						
Beginning Fiscal Year	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
# of FTE	1	2	1			5
Personnel Cost	\$80,000	\$160,000	\$80,000			\$400,000
Code 1	\$144,550	\$210,000	\$133,000			\$500,500
Total						

Summary:

Fiscal Year	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	Total
One Time Costs	\$800,000	\$6,800,000	\$200,000		\$3,188,000	\$1,000,000	\$11,988,000
Annual Cost (cumulative)	\$829,250	\$1,789,250	\$2,002,250	\$2,002,250	\$2,002,250	\$2,902,750	

Note: Region 2 requires 32 additional FTEs in SL County to meet 25 SA per FTE on current facilities.

REQUEST FOR INCREASE IN FUNDS FOR FY 2011 BUDGET - SUPPORTING DETAIL

Attach additional supporting detail if necessary

Description:	Maintenance Cost Increase - Region 2 - south Salt Lake County - due to added features	Priority No. 1-B
Program Name:	0 Check One: <u>Ongoing</u> One-time <input checked="" type="checkbox"/> Legislation Needed? No	
<i>Provide a three-year history and two-year projection of the workload, caseload, or other measure for this program or service:</i>		
FY 2008 Actual:	FY 2011 Projected Total:	\$1,947,000
FY 2009 Actual:	FY 2012 Projected Total:	
FY 2010 Actual:	FY 2011 Projected % Increase:	
<p><i>In the space below, show computation details outlining how the requested amount is determined. Include FTE needed & the payroll cost for each; additional space requirements; the types and amounts of equipment and related cost; the number of individuals served by the request and the annual service cost <u>per individual</u>; and similar data for all other expenses.</i></p> <p>Estimated cost increase due to transportation system improvement is calculated by determining the number of additional items requiring maintenance then multiplying by three-year average statewide unit cost to maintain those items during FY2007-2009. FY2009 is the last full reporting year available at the time the estimate was prepared.</p> <p>No indirect charges were included as it is assumed that station operating costs, such items as utilities, building repair, training, leave, fixed equipment costs, etc, will not increase significantly due to increasing workload</p> <p>Costs for each type road component, such things as pavement, guardrail, drains, signs, paint striping, are summed for each region and the total estimated cost increased is summed.</p> <p>For ease of presentation, the number of lane-miles of added pavement was selected to represent the diverse costs going into the total cost. This was done to allow a representative measure of changes rather than requiring the reader to plow through pages of breakouts. Additional features are derived from projects published in the FY2010 Statewide Transportation Improvement Plan, each of which has a potential of 80 classes of additional items requiring maintenance. To present this data in other than a condensed representation would burden the reader.</p> <p>The increases are presented by region with an accompanying map that shows relative geographic distribution of added pavements.</p> <p>Individuals served Road users in all twenty nine counties where major and minor projects added roadway features requiring maintenance.</p>		

Budget Increase Summary

Financing	FY 2011
General Fund	
School Funds	
Transportation Fund	1,947,000
Federal Funds	
Dedicated Credits	
Restricted Funds	
Transfers (specify)	
Other (specify)	
Beginning Balance	
Total Financing	\$1,947,000

Expenditures	FY 2011
Personal Services	
In-State Travel	
Out-of-State Travel	
Current Expense	1,947,000
DP Current Expense	
DP Capital	
Capital Outlay	
Pass Thru/Other	
Total Expenditures	\$1,947,000
Positions:	

Percentage Increase of Request

FY2011 Base Budget for this Program	
FY2011 Requested % Increase	0.0%

Department: Transportation

Contact: Richard Clarke

Line Item/Division:

Phone Number: 801-965-4120

REQUEST FOR INCREASE IN FUNDS FOR FY 2011 BUDGET - SUPPORTING DETAIL

Attach additional supporting detail if necessary

Description:	Maintenance Cost Increase - Region 2 - south Salt Lake County - due to added features	Priority No. 1-B
Program Name:	0 Check One: Ongoing One-time <input checked="" type="checkbox"/> Legislation Needed? No	
<i>Provide a three-year history and two-year projection of the workload, caseload, or other measure for this program or service:</i>		
FY 2008 Actual:	FY 2011 Projected Total:	\$1,947,000
FY 2009 Actual:	FY 2012 Projected Total:	
FY 2010 Actual:	FY 2011 Projected % Increase:	
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General Fund	
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Transportation Fund	1,947,000
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Restricted Funds	
Transfers (specify)	
Other (specify)	
Beginning Balance	
Total Financing	\$1,947,000

Expenditures	FY 2011
Personal Services	
In-State Travel	
Out-of-State Travel	
Current Expense	1,947,000
DP Current Expense	
DP Capital	
Capital Outlay	
Pass Thru/Other	
Total Expenditures	\$1,947,000
Positions:	

Percentage Increase of Request

FY2011 Base Budget for this Program	
FY2011 Requested % Increase	0.0%

Department: Transportation**Contact:** Richard Clarke**Line Item/Division:****Phone Number:** 801-965-4120

Maintenance Funding and FTE Requirements for New and Reconstructed Facilities in Region Three

Introduction

New capacity and construction projects that will be completed in Region Three over the next five years will increase the surface area that is maintained by State forces. Table 1 provides a brief description of the work, the route affected and the approximate new surface area due to the new construction and reconstruction.

Table 1

State Route	Location	Project Scope	Added Surface Area
I-15 Core	American Fork Main Street to US-6 Interchange	Reconstruction	143
Pioneer Crossing	SR-68 to I-15 American Fork	New Construction	38
SR-68	Utah/Salt Lake County Line to 400 South	Reconstruction	32
SR-77	I-15 to US-89	Reconstruction	9.3
SR-92	I-15 to SR-74	Reconstruction	38
2100 North	SR-68 to I-15	New Construction	22

New Surface Area 282.3 Urban

The Region Three Maintenance Division of the Utah Department of Transportation requests authorization and funding for eleven additional full-time employee(s) and eleven fully equipped trucks for snow removal maintenance. Additionally because of this significant increase in surface area and location, two new maintenance stations are requested as well along with additional equipment. Approximate locations of these new stations are in Saratoga Springs along the SR-68/Pioneer Crossing Intersection and the other in the Lindon/Pleasant Grove area along I-15.

As a result of the new construction and surface area increases, the yearly maintenance budgets need to be increased to compensate for the additional material and equipment costs required to

maintain these new areas. In the two sheds most impacted by this work we are currently understaffed by 7 FTE's based on existing surface area. It is imperative that personnel and equipment needs be met and maintenance funding be allocated for the new surface area to maintain State Routes in a safe condition to serve the traveling public.

This request is mandatory to achieve the Department Strategic Goals. Maintenance is a key component to preserving State Routes and ensuring that newly constructed roads last their design life. The Region has had a very successful customer service log, which helps track customer concerns and approval. We also have Region Performance Measures used to help identify funding needs and areas needing improvement.

Snow removal during the winter months is the UDOT Maintenance Crews top priority and the basis for personnel needs. During summer months, crews focus on landscaping and preventive maintenance activities. Routine maintenance is vital. The three main funding requirements are Labor, One Time Start Up Costs, and Yearly Annual Costs. Maintenance funding requirements for the increased surface area due to new construction and widening are listed below.

Labor Requirements

A. Positions Needed (<i>See Appendix A</i>)		
11 Transportation Technicians		
(Snow and Routine Maintenance)	Total	11 FTEs

Start Up Costs

A. Equipment (<i>See Appendix B</i>)		
Routine Maintenance	Total	\$3,439,000

Annual Costs

A. Labor, Yearly Equipment and Material Costs	Total	\$1,849,200
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New Facilities

A. Two – Eight Bay Sheds with one open bay Enclosed with Heat and Light	Total	\$4,000,000
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Appendix A

Yearly Costs for Labor, Equipment, and Materials

The following estimates were generated utilizing Lynn Bernhard's program. Some of the estimates are based on information drawn from plans and engineer estimates which were at the PS&E stage or in final plan form. Others namely I-15 Core, SR-92, Pioneer Crossing, and SR-77 were based on information which could change as the projects progress, especially I-15 Core.

Project	New SA	Required Yearly Budget	FTE's	Expected Year Online
I-15 Core	143	\$769,400.00	6	2014 (FY 2015)
Pioneer Crossing	38	\$330,200.00	2	2010 (FY 2011)
SR-68	32	\$143,200.00	1	2009 (FY 2010)
SR-77	9.3	\$41,500.00	0	2009 (FY 2010)
SR-92	38	\$301,800.00	2	2011 (FY 2012)
2100 North	22	\$263,100.00	1	2010 (FY 2011)
	282.3	\$1,849,200.00	11	

Appendix B

Start Up Costs - Equipment

It was determined that eleven additional FTEs are required due to surface area increases resulting from new construction as well as two new maintenance stations. Equipment to support these additional resources was then determined. UDOT Area Supervisors and Station Supervisors estimated the minimum equipment required, based on equipment management standards. The required equipment for routine maintenance is as follows:

<u>Quantity</u>	<u>Equipment</u>	<u>Unit Cost</u>	<u>Total</u>
8	Ten Wheeler with Plow and Sander	\$148,000	\$1,184,000
3	Ten Wheeler Tag Axle with Plow and Sander	\$174,000	\$522,000
1	Vactor	\$265,000	\$265,000
1	Mobile Sweeper/Vacuum	\$185,000	\$185,000
1	Grader	\$178,000	\$178,000
1	Trailer (> 35 tons)	\$109,000	\$109,000
2	Loader	\$104,000	\$208,000
1	Crane	\$95,000	\$95,000
3	1-ton Truck	\$41,000	\$123,000
1	Litter Rake	\$60,000	\$60,000
1	Shoulder Sweeper	\$50,000	\$50,000
1	Roller	\$49,000	\$49,000
1	Crack Sealer	\$48,000	\$48,000
1	Small Trailer (< 35 tons)	\$38,000	\$38,000
1	Tractor	\$38,000	\$38,000
1	Bobcat	\$35,000	\$35,000

1	Self-Propelled Broom	\$35,000	\$35,000
1	Brush Chipper	\$31,000	\$31,000
1	Concrete Saw	\$24,000	\$24,000
1	Concrete Mixer	\$22,000	\$22,000
2	VMS	\$19,000	\$38,000
2	Attenuator	\$19,000	\$38,000
1	Compressor	\$15,000	\$15,000
1	Mower Attachment	\$14,000	\$14,000
1	Welder/Generator	\$12,000	\$12,000
1	Generator	\$7,000	\$7,000
1	Road Debris Magnet	\$6,000	\$6,000
2	Portable Steam Cleaner	\$5,000	\$10,000
Total			\$3,439,000

Appendix C

Phased Start Up Costs - Equipment

Saratoga Springs Shed Needed by FY 2011 with Following Equipment

<u>Quantity</u>	<u>Equipment</u>	<u>Unit Cost</u>	<u>Total</u>
4	Ten Wheeler with Plow and Sander	\$148,000	\$592,000
1	Mobile Sweeper/Vacuum	\$185,000	\$185,000
1	Grader	\$178,000	\$178,000
1	Loader	\$104,000	\$104,000
1	1-ton Truck	\$41,000	\$41,000
1	Small Trailer (< 35 tons)	\$38,000	\$38,000
1	Tractor	\$38,000	\$38,000
1	Brush Chipper	\$31,000	\$31,000
1	Concrete Saw	\$24,000	\$24,000
1	Concrete Mixer	\$22,000	\$22,000
1	VMS	\$19,000	\$19,000
1	Attenuator	\$19,000	\$19,000
1	Compressor	\$15,000	\$15,000
1	Small Tools	\$15,000	\$15,000
1	Mower Attachment	\$14,000	\$14,000
1	Welder/Generator	\$12,000	\$12,000
1	Portable Steam Cleaner	\$5,000	\$5,000
Total			\$1,352,000

Lindon/Pleasant Grove Shed Needed by FY 2014 with Following Equipment

<u>Quantity</u>	<u>Equipment</u>	<u>Unit Cost</u>	<u>Total</u>
4	Ten Wheeler with Plow and Sander	\$148,000	\$592,000
3	Ten Wheeler Tag Axle with Plow and Sander	\$174,000	\$522,000
1	Vactor	\$265,000	\$265,000
1	Mobile Sweeper/Vacuum	\$185,000	\$185,000
1	Trailer (> 35 tons)	\$109,000	\$109,000
1	Loader	\$104,000	\$104,000
1	Crane	\$95,000	\$95,000
2	1-ton Truck	\$41,000	\$82,000
1	Litter Rake	\$60,000	\$60,000
1	Shoulder Sweeper	\$50,000	\$50,000
1	Roller	\$49,000	\$49,000
1	Crack Sealer	\$48,000	\$48,000
1	Bobcat	\$35,000	\$35,000
1	Self-Propelled Broom	\$35,000	\$35,000
1	VMS	\$19,000	\$19,000
1	Attenuator	\$19,000	\$19,000
1	Small Tools	\$15,000	\$15,000
1	Generator	\$7,000	\$7,000
1	Road Debris Magnet	\$6,000	\$6,000
1	Portable Steam Cleaner	\$5,000	\$5,000
	Total		\$2,302,000

Grand Total

\$3,654,000

ESTIMATED
BUDGET IMPACT
for FY2011

ACTIVITY H5 CORE DESCRIPTION

REGION 3

1A1		2008
S78	Snow and Ice Control	\$301,300
S78	Snow Removal (O.T.)	\$0
S79	Snow Fence, Mark & BBLs	\$0
S80	Snow and Ice Control (Other)	\$3,200
D81	Snow (Open Closed Roads)	\$0
D82	Special Snow Maintenance	\$0
D83	Avalanche Control	\$0
M95	On Call	\$0
2A1		
S01	Bituminous Pothole and Severe Depression Patching	\$0
S03	Treat Bleeding Pavement	\$0
S05	Minor Flushing Projects	\$0
D06	Bituminous Surface Replacement	\$0
D07	Bituminous lane and/or Shoulder Leveling	\$0
D10	Bituminous Base Repair	\$0
D12	Bituminous Asphalt Surface Rejuvenation	\$0
D13	Bituminous Surf. & Shoulder Maint. (Special)	\$0
D22	Bituminous Planning	\$0
M04	Betterment	\$0
2A2		
S02	Bituminous Crack Sealing	\$0
D08	Bituminous Seal Coat (Chip Seal)	\$0
D09	Bituminous Flush Coat	\$0
2B1		
D14	PCC Pavement using PCC Material	\$328,500
D17	Level Concrete (L & S)	\$0
D15	PCC Pavement Cleaning and Sealing of Hot Poured & Silicon	\$100
D16	PCC Crack Sealing	\$0
D19	PCC Pavement Bituminous Patching	\$5,500
D20	Spec PCC Surf Maint.	\$0
3A1		
S22	Non-Hard Surface Road Maintenance	\$0
S28	Non-Hard Shoulder Maintenance	\$0
S29	Other Routine Non-Hard Shoulder.	\$0
D30	Non-Hard Shoulder Maintenance (Special)	\$0
D48	Special Roadside Maint.	\$0
4A1		
S39	Litter Control (Annual)	\$0
S38	Annual Litter	\$0
S70	Other Routine Traffic	\$0
S45	Routine Roadside (Other)	\$0
4A2		
S54	Rock Removal	\$0
4A3		
7S44	Fence Maintenance and Repair	\$0
5A1		
D34	Vegetation Control (CHEMICAL)	\$0
D36	Special Vegetation Control	\$0
5A2		
D35	Vegetation Control: Cutting Brush Trimming & Removing Trees	\$0
S33	Vegetation Control (Other)	\$0
D46	Seeding	\$0
5A3		
S32	Mowing	\$0
5A4		
M12	Vegetation Management	\$0
5B1		
S42	Roadside Landscape	\$0
6A1		
S46	Paved/Concrete Ditch Maintenance	\$0
S52	Cut Ditch Clean and Repair	\$0
S53	Canyon Cut Ditch Cleaning	\$0
S56	Open Surface Drainage Maintenance	\$0
S84	Floods & Landslides	\$800

S85	Other Extraordinary	\$0
D58	Detention Pond Maintenance	\$30,200
6A2		
S51	Drainage Program Maintenance	\$14,000
S57	Drainage Inspection	\$0
D61	Special Drain & Struct.	\$40,100
6B1		
S55	Erosion Repair	\$5,600
7A1		
D62	Structure Maintenance	\$1,700
7A2		
** S53	Routine Struct. Cleaning	\$400
D59	Special Struct. Repair	\$0
S58	Graffiti Removal	\$300
7A3		
D47	Cattle Guards Maintenance and Repair	\$0
D60	Structure Inspection	\$0
8A1		
D70	Epoxy Striping	\$0
D71	Paint Guidelines (Waterborne & Tape)	\$4,400
D74	Guideline(Removal)	\$0
8A2		
D72	Pavement Messages Maintenance	\$0
D69	Painting Traffic Islands/Parking Lots	\$0
M07	Pavement Marking Projects	\$0
8A3		
S63	Sign and Post Inspection (Annual)	\$0
S64	Sign and Post Maintenance (Routine)	\$0
S65	Sign Vandalism Repair	\$0
D73	New Sign Installation	\$100
D78	Interstate Sign Renovation Maintenance	\$7,400
8A4		
S68	Delineator Post and Reflector Maintenance	\$0
8A5		
S41	Noise Wall Maintenance	
S66	Guardrail Maintenance	\$1,800
S71	Concrete Barrier Maintenance	\$13,600
S72	Glare Screen Maintenance	\$0
D77	Attenuator Repair	\$2,800
8A6		
M10	Lighting Contract	\$900
M20	Interstate Signing	\$0
M50	Contractual Services	\$0
8A7		
D75	Traffic Signals & Highway Lights Maintenance	\$0
D76	Traffic Services Maintenance (Special)	\$0
8A8		
S69	Sweeping	\$3,900
8A9		
S43	Maintain & Replacement of Curb & Gutter &/or Shoulder Curb	\$2,800
S47	Shoulder Curb Maint	\$0
S67	Maint. Traffic Islands	\$0
8A0		
S49	Truck Runaway Lanes Maintenance	\$0
YEARLY TOTAL - Region 3		\$769,400

Conversion to Lane-Miles or Surface Area (12 ft wide-1 mile long section)

BegSta	EndSta	Length Ft	Length Mi	Width Ft	Width 12ft	TrvlLanes	Lane-Mile or SA	TrvlLnMi	Northbound
1005	1015	1000	0.189394	52	4.333333	4.5	0.820707	0.852273	
1015	1072	5700	1.079545	76	6.333333	6.5	8.837121	7.017045	
1072	1080	800	0.151515	88	7.333333	7.5	1.111111	1.136364	
1080	1095	1500	0.284091	76	6.333333	6.5	1.799242	1.846591	
1095	1115	2000	0.378788	88	7.333333	7.5	2.777778	2.840909	
1115	1195	8000	1.515152	76	6.333333	6.5	9.59596	9.848485	
1195	1217	2200	0.416667	100	8.333333	8.5	3.472222	3.541667	
1217	1250	3300	0.625	88	7.333333	7.5	4.583333	4.6875	
1250	1255	500	0.094697	100	8.333333	8.5	0.789141	0.804924	
1255	1272	1700	0.32197	76	6.333333	6.5	2.039141	2.092803	
1272	1281	900	0.170455	100	8.333333	8.5	1.420455	1.448864	
1281	1330	4900	0.92803	112	9.333333	9.5	8.661616	8.816288	
1330	1350	2000	0.378788	100	8.333333	8.5	3.158566	3.219697	
2000	2019	1900	0.359848	100	8.333333	8.5	2.998737	3.058712	
2019	2040	2100	0.397727	88	7.333333	7.5	2.916667	2.982955	
2040	2055	1500	0.284091	112	9.333333	9.5	2.651515	2.698864	
2055	2067	1200	0.227273	100	8.333333	8.5	1.893939	1.931818	
2067	2080	1300	0.246212	88	7.333333	7.5	1.805556	1.846591	
2080	2090	1000	0.189394	100	8.333333	8.5	1.578283	1.609848	
2090	2115	2500	0.473485	110	9.166667	9	4.340278	4.261364	
2115	2204	8900	1.685606	100	8.333333	8.5	14.04672	14.32765	
2204	2230	2600	0.492424	88	7.333333	7.5	3.611111	3.693182	
2230	2272	4200	0.795455	112	9.333333	9.5	7.424242	7.556818	
3010	3029	1900	0.359848	112	9.333333	9.5	3.358586	3.418561	
3029	3050	2100	0.397727	100	8.333333	8.5	3.314394	3.380682	
3050	3061	1100	0.397727	124	10.333333	10.5	2.152778	2.1875	
3061	3068	700	0.208333	112	9.333333	9.5	1.237374	1.25947	
4000	4013	1300	0.132576	112	9.333333	9.5	2.29798	2.339015	
4013	4034	2100	0.246212	100	8.333333	8.5	3.14394	3.18561	
4034	4043	900	0.397727	124	10.333333	10.5	1.761364	1.789773	
4043	4063	2000	0.170455	112	9.333333	9.5	3.535354	3.598485	
4063	4067	400	0.378788	100	8.333333	8.5	0.782828	0.795455	
4067	4091	2400	0.075758	124	10.333333	10.5	3.787879	3.863636	
4091	4101	1000	0.454545	112	9.333333	9.5	1.957071	1.986636	
4101	4115	1400	0.189394	100	8.333333	8.5	2.474747	2.518939	
4115	4185	7000	0.265152	100	8.333333	8.5	11.04798	11.26894	
4185	4204	1900	1.325758	112	9.333333	9.5	3.358586	3.418561	
4204	4226	2200	0.359848	100	8.333333	8.5	3.472222	3.541667	
4226	4236	1000	0.416667	124	10.333333	10.5	1.957071	1.986636	
4236	4264	2800	0.189394	112	9.333333	9.5	4.949495	5.037879	
4264	4267	300	0.530303	100	8.333333	8.5	0.587121	0.596591	
4267	4288	2100	0.056618	124	10.333333	10.5	3.14394	3.18561	
4288	4299	1100	0.397727	100	8.333333	8.5	1.944444	1.979167	
4299	4349	5000	0.94697	112	9.333333	9.5	7.891414	8.049242	
4349	4373	2400	0.454545	100	8.333333	8.5	4.242424	4.318182	
1005	1015	1000	0.189394	52	4.333333	4.5	0.820707	0.852273	Southbound
1015	1072	5700	1.079545	76	6.333333	6.5	8.837121	7.017045	
1072	1080	800	0.151515	88	7.333333	7.5	1.111111	1.136364	
1080	1095	1500	0.284091	76	6.333333	6.5	1.799242	1.846591	
1095	1115	2000	0.378788	88	7.333333	7.5	2.777778	2.840909	
1115	1195	8000	1.515152	76	6.333333	6.5	9.59596	9.848485	
1195	1217	2200	0.416667	100	8.333333	8.5	3.472222	3.541667	
1217	1250	3300	0.625	88	7.333333	7.5	4.583333	4.6875	
1250	1255	500	0.094697	100	8.333333	8.5	0.789141	0.804924	
1255	1272	1700	0.32197	76	6.333333	6.5	2.039141	2.092803	
1272	1281	900	0.170455	100	8.333333	8.5	1.420455	1.448864	
1281	1330	4900	0.92803	112	9.333333	9.5	8.661616	8.816288	
1330	1350	2000	0.378788	100	8.333333	8.5	3.158566	3.219697	
2000	2019	1900	0.359848	100	8.333333	8.5	2.998737	3.058712	
2019	2040	2100	0.397727	88	7.333333	7.5	2.916667	2.982955	
2040	2055	1500	0.284091	112	9.333333	9.5	2.651515	2.698864	
2055	2067	1200	0.227273	100	8.333333	8.5	1.893939	1.931818	
2067	2080	1300	0.246212	88	7.333333	7.5	1.805556	1.846591	
2080	2090	1000	0.189394	100	8.333333	8.5	1.578283	1.609848	
2090	2115	2500	0.473485	110	9.166667	9	4.340278	4.261364	
2115	2204	8900	1.685606	100	8.333333	8.5	14.04672	14.32765	
2204	2230	2600	0.492424	88	7.333333	7.5	3.611111	3.693182	
2230	2272	4200	0.795455	112	9.333333	9.5	7.424242	7.556818	
3010	3029	1900	0.359848	112	9.333333	9.5	3.358586	3.418561	
3029	3050	2100	0.397727	100	8.333333	8.5	3.314394	3.380682	
3050	3061	1100	0.397727	124	10.333333	10.5	2.152778	2.1875	
3061	3068	700	0.208333	112	9.333333	9.5	1.237374	1.25947	
4000	4013	1300	0.132576	112	9.333333	9.5	2.29798	2.339015	
4013	4034	2100	0.246212	100	8.333333	8.5	3.14394	3.18561	
4034	4043	900	0.397727	124	10.333333	10.5	1.761364	1.789773	
4043	4063	2000	0.170455	112	9.333333	9.5	3.535354	3.598485	
4063	4067	400	0.378788	100	8.333333	8.5	0.782828	0.795455	
4067	4091	2400	0.075758	124	10.333333	10.5	3.787879	3.863636	
4091	4101	1000	0.454545	112	9.333333	9.5	1.957071	1.986636	
4101	4115	1400	0.189394	100	8.333333	8.5	2.474747	2.518939	
4115	4185	7000	0.265152	100	8.333333	8.5	11.04798	11.26894	
4185	4204	1900	1.325758	112	9.333333	9.5	3.358586	3.418561	
4204	4226	2200	0.359848	100	8.333333	8.5	3.472222	3.541667	
4226	4236	1000	0.416667	124	10.333333	10.5	1.957071	1.986636	
4236	4264	2800	0.189394	112	9.333333	9.5	4.949495	5.037879	
4264	4267	300	0.530303	100	8.333333	8.5	0.587121	0.596591	
4267	4288	2100	0.056618	124	10.333333	10.5	3.14394	3.18561	
4288	4299	1100	0.397727	100	8.333333	8.5	1.944444	1.979167	
4299	4349	5000	0.94697	112	9.333333	9.5	7.891414	8.049242	
4349	4373	2400	0.454545	100	8.333333	8.5	4.242424	4.318182	
1005	1015	1000	0.189394	52	4.333333	4.5	0.820707	0.852273	Southbound
1015	1072	5700	1.079545	76	6.333333	6.5	8.837121	7.017045	
1072	1080	800	0.151515	88	7.333333	7.5	1.111111	1.136364	
1080	1095	1500	0.284091	76	6.333333	6.5	1.799242	1.846591	
1095	1115	2000	0.378788	88	7.333333	7.5	2.777778	2.840909	
1115	1195	8000	1.515152	76	6.333333	6.5	9.59596	9.848485	
1195	1217	2200	0.416667	100	8.333333	8.5	3.472222	3.541667	
1217	1250	3300	0.625	88	7.333333	7.5	4.583333	4.6875	
1250	1255	500	0.094697	100	8.333333	8.5	0.789141	0.804924	
1255	1272	1700	0.32197	76	6.333333	6.5	2.039141	2.092803	
1272	1281	900	0.170455	100	8.333333	8.5	1.420455	1.448864	
1281	1330	4900	0.92803	112	9.333333	9.5	8.661616	8.816288	
1330	1350	2000	0.378788	100	8.333333	8.5	3.158566	3.219697	
2000	2019	1900	0.359848	100	8.333333	8.5	2.998737	3.058712	
2019	2040	2100	0.397727	88	7.333333	7.5	2.916667	2.982955	
2040	2055	1500	0.284091	112	9.333333	9.5	2.651515	2.698864	
2055	2067	1200	0.227273	100	8.333333	8.5	1.893939	1.931818	
2067	2080	1300	0.246212	88	7.333333	7.5	1.805556	1.846591	
2080	2090	1000	0.189394	100	8.333333	8.5	1.578283	1.609848	
2090	2115	2500	0.473485	110	9.166667	9	4.340278	4.261364	
2115	2204	8900	1.685606	100	8.333333	8.5	14.04672	14.32765	
2204	2230	2600	0.492424	88	7.333333	7.5	3.611111	3.693182	
2230	2272	4200	0.795455	112	9.333333	9.5	7.424242	7.556818	
3010	3029	1900	0.359848	112	9.333333	9.5	3.358586	3.418561	
3029	3050	2100	0.397727	100	8.333333	8.5	3.314394	3.380682	
3050	3061	1100	0.397727	124	10.333333	10.5	2.152778	2.1875	
3061	3068	700	0.208333	112	9.333333	9.5	1.237374	1.25947	
4000	4013	1300	0.132576	112	9.333333	9.5	2.29798	2.339015	
4013	4								

1200	1225	1250	0.473485	88	7.333333	7.5	3.472222	3.551136
1225	1245	2000	0.378788	100	8.333333	8.5	3.156566	3.219697
1245	1262	1700	0.32197	76	6.333333	6.5	2.039141	2.092803
1262	1350	8800	1.866667	88	7.333333	7.5	12.22222	12.5
2000	2010	1000	0.189394	88	7.333333	7.5	1.388889	1.420455
2010	2019	900	0.170455	100	8.333333	8.5	1.420455	1.448864
2045	2045	2600	0.492424	88	7.333333	7.5	3.611111	3.693182
2075	2075	3000	0.568182	100	8.333333	8.5	4.734848	4.829545
2075	2190	11500	2.17803	110	9.166667	9	19.96528	19.60227
2190	2196	600	0.113636	100	8.333333	8.5	0.94697	0.965909
2196	2208	1200	0.227273	112	9.333333	9.5	2.121212	2.159091
2208	2230	2200	0.416667	88	7.333333	7.5	3.055556	3.125
2230	2247	1700	0.32197	124	10.33333	10.5	3.32702	3.380682
2247	2257	1000	0.189394	112	9.333333	9.5	1.767677	1.799242
2257	2272	1500	0.284091	100	8.333333	8.5	2.367424	2.414773
3010	3019	900	0.170455	100	8.333333	8.5	1.420455	1.448864
3019	3031	1200	0.227273	112	9.333333	9.5	2.121212	2.159091
3031	3047	1600	0.30303	100	8.333333	8.5	2.525253	2.575758
3047	3052	500	0.094697	124	10.33333	10.5	0.978535	0.994318
3052	3068	1600	0.30303	112	9.333333	9.5	2.828283	2.878788
4000	4003	300	0.056818	100	8.333333	8.5	0.530303	0.539773
4003	4013	1000	0.189394	112	10.33333	10.5	1.957071	1.988636
4013	4036	2300	0.435606	124	10.33333	10.5	0.978535	3.702652
4036	4041	500	0.094697	100	8.333333	8.5	3.630051	3.702652
4041	4059	1800	0.340909	124	10.33333	10.5	1.74242	1.93182
4059	4072	1300	0.246212	112	9.333333	9.5	2.474747	2.518939
4072	4095	2300	0.435606	100	8.333333	8.5	10.25884	10.46402
4095	4101	600	0.113636	124	10.33333	10.5	2.651515	2.698864
4101	4115	1400	0.265152	112	9.333333	8.5	2.152778	2.1875
4115	4180	6500	1.231061	100	8.333333	10.5	3.630051	3.702652
4180	4195	1500	0.284091	100	8.333333	9.5	1.74242	1.93182
4195	4206	1100	0.208333	112	10.33333	10.5	3.888889	3.958333
4206	4229	2300	0.435606	124	9.333333	8.5	1.957071	1.988636
4229	4235	600	0.113636	100	8.333333	10.5	3.314394	3.380682
4235	4257	2200	0.416667	124	10.33333	10.5	0.978535	0.994318
4257	4267	1000	0.189394	112	9.333333	9.5	2.29798	2.339015
4267	4288	2100	0.397727	100	8.333333	8.5	6.786615	6.922348
4288	4293	500	0.094697	124	9.333333	9.5	2.474747	2.518939
4293	4306	1300	0.246212	100	8.333333	10.5	2.544192	2.585227
4306	4349	4300	0.814394	112	9.333333	8.5		
4349	4363	1400	0.265152	124	10.33333	10.5		
4363	4376	1300	0.246212					
Totals			39.75379				327.4684	333.2102
Existing Totals			39.7				184	183
New			0				143.4684	150.2102

ESTIMATED
BUDGET IMPACT
for FY2011

ACTIVITY

Pioneer Crossing DESCRIPTION

REGION 3

1A1		2008
S78	Snow and Ice Control	\$86,400
S78	Snow Removal (O.T.)	\$0
S79	Snow Fence, Mark & BBLs	\$0
S80	Snow and Ice Control (Other)	\$900
D81	Snow (Open Closed Roads)	\$0
D82	Special Snow Maintenance	\$0
D83	Avalanche Control	\$0
M95	On Call	\$0
2A1		
S01	Bituminous Pothole and Severe Depression Patching	\$100
S03	Treat Bleeding Pavement	\$0
S05	Minor Flushing Projects	\$0
D06	Bituminous Surface Replacement	\$0
D07	Bituminous lane and/or Shoulder Leveling	\$0
D10	Bituminous Base Repair	\$0
D12	Bituminous Asphalt Surface Rejuvenation	\$100
D13	Bituminous Surf. & Shoulder Maint. (Special)	\$0
D22	Bituminous Planning	\$0
M04	Betterment	\$500
2A2		
S02	Bituminous Crack Sealing	\$300
D08	Bituminous Seal Coat (Chip Seal)	\$1,200
D09	Bituminous Flush Coat	\$100
2B1		
D14	PCC Pavement using PCC Material	\$87,600
D17	Level Concrete (L & S)	\$0
D15	PCC Pavement Cleaning and Sealing of Hot Poured & Silicon	\$0
D16	PCC Crack Sealing	\$0
D19	PCC Pavement Bituminous Patching	\$1,500
D20	Spec PCC Surf Maint.	\$0
3A1		
S22	Non-Hard Surface Road Maintenance	\$0
S28	Non-Hard Shoulder Maintenance	\$0
S29	Other Routine Non-Hard Shoulder.	\$0
D30	Non-Hard Shoulder Maintenance (Special)	\$0
D48	Special Roadside Maint.	\$0
4A1		
S39	Litter Control (Annual)	\$9,800
S38	Annual Litter	\$2,200
S70	Other Routine Traffic	\$0
S45	Routine Roadside (Other)	\$3,600
4A2		
S54	Rock Removal	\$100
4A3		
7S44	Fence Maintenance and Repair	\$1,900
5A1		
D34	Vegetation Control (CHEMICAL)	\$700
D36	Special Vegetation Control	\$0
5A2		
D35	Vegetation Control: Cutting Brush Trimming & Removing Trees	\$500
S33	Vegetation Control (Other)	\$700
D46	Seeding	\$0
5A3		
S32	Mowing	\$1,800
5A4		
M12	Vegetation Management	\$200
5B1		
S42	Roadside Landscape	\$100
6A1		
S46	Paved/Concrete Ditch Maintenance	\$0
S52	Cut Ditch Clean and Repair	\$0
S53	Canyon Cut Ditch Cleaning	\$300
S56	Open Surface Drainage Maintenance	\$100
S84	Floods & Landslides	\$100

S85	Other Extraordinary	\$0
D58	Detention Pond Maintenance	\$18,100
6A2		
S51	Drainage Program Maintenance	\$4,700
S57	Drainage Inspection	\$0
D61	Special Drain & Struct.	\$13,400
8B1		
S55	Erosion Repair	\$1,700
7A1		
D62	Structure Maintenance	\$3,400
7A2		
** S53	Routine Struct. Cleaning	\$700
D59	Special Struct. Repair	\$0
S58	Graffiti Removal	\$700
7A3		
D47	Cattle Guards Maintenance and Repair	\$0
D60	Structure Inspection	\$100
8A1		
D70	Epoxy Striping	\$0
D71	Paint Guidelines (Waterborne & Tape)	\$7,800
D74	Guideline(Removal)	\$0
8A2		
D72	Pavement Messages Maintenance	\$6,600
D69	Painting Traffic Islands/Parking Lots	\$2,900
M07	Pavement Marking Projects	\$0
8A3		
S63	Sign and Post Inspection (Annual)	\$200
S64	Sign and Post Maintenance (Routine)	\$12,700
S65	Sign Vandalism Repair	\$200
D73	New Sign Installation	\$700
D78	Interstate Sign Renovation Maintenance	\$1,200
8A4		
S68	Delineator Post and Reflector Maintenance	\$0
8A5		
S41	Noise Wall Maintenance	
S66	Guardrail Maintenance	\$0
S71	Concrete Barrier Maintenance	\$900
S72	Glare Screen Maintenance	\$0
D77	Attenuator Repair	\$800
8A6		
M10	Lighting Contract	\$4,800
M20	Interstate Signing	\$0
M50	Contractual Services	\$0
8A7		
D75	Traffic Signals & Highway Lights Maintenance	\$10,600
D76	Traffic Services Maintenance (Special)	\$1,900
8A8		
S69	Sweeping	\$21,300
8A9		
S43	Maintain & Replacement of Curb & Gutter &/or Shoulder Curb	\$1,600
S47	Shoulder Curb Maint	\$0
S67	Mainl. Traffic Islands	\$12,400
8A0		
S49	Truck Runaway Lanes Maintenance	\$0
YEARLY TOTAL - Region 3		\$330,200

ESTIMATED
BUDGET IMPACT
for FY2011

ACTIVITY SR-68 DESCRIPTION

REGION 3

1A1		2008
S78	Snow and Ice Control	\$66,300
S78	Snow Removal (O.T.)	\$0
S79	Snow Fence, Mark & BBLs	\$1,200
S80	Snow and Ice Control (Other)	\$700
D81	Snow (Open Closed Roads)	\$0
D82	Special Snow Maintenance	\$0
D83	Avalanche Control	\$0
M95	On Call	\$0
2A1		
S01	Bituminous Pothole and Severe Depression Patching	\$700
S03	Treat Bleeding Pavement	\$0
S05	Minor Flushing Projects	\$0
D06	Bituminous Surface Replacement	\$200
D07	Bituminous lane and/or Shoulder Leveling	\$100
D10	Bituminous Base Repair	\$200
D12	Bituminous Asphalt Surface Rejuvenation	\$800
D13	Bituminous Surf. & Shoulder Maint. (Special)	\$100
D22	Bituminous Planning	\$200
M04	Betterment	\$5,800
2A2		
S02	Bituminous Crack Sealing	\$3,400
D08	Bituminous Seal Coat (Chip Seal)	\$13,000
D09	Bituminous Flush Coat	\$1,500
2B1		
D14	PCC Pavement using PCC Material	\$0
D17	Level Concrete (L & S)	\$0
D15	PCC Pavement Cleaning and Sealing of Hot Poured & Silicon	\$0
D16	PCC Crack Sealing	\$0
D19	PCC Pavement Bituminous Patching	\$0
D20	Spec PCC Surf Maint.	\$0
3A1		
S22	Non-Hard Surface Road Maintenance	\$0
S28	Non-Hard Shoulder Maintenance	\$0
S29	Other Routine Non-Hard Shoulder.	\$0
D30	Non-Hard Shoulder Maintenance (Special)	\$0
D48	Special Roadside Maint.	\$0
4A1		
S39	Litter Control (Annual)	\$4,600
S38	Annual Litter	\$1,000
S70	Other Routine Traffic	\$0
S45	Routine Roadside (Other)	\$1,200
4A2		
S54	Rock Removal	(\$100)
4A3		
7S44	Fence Maintenance and Repair	\$1,400
5A1		
D34	Vegetation Control (CHEMICAL)	\$200
D36	Special Vegetation Control	\$0
5A2		
D35	Vegetation Control: Cutting Brush Trimming & Removing Trees	\$200
S33	Vegetation Control (Other)	\$200
D46	Seeding	\$0
5A3		
S32	Mowing	\$0
5A4		
M12	Vegetation Management	\$100
5B1		
S42	Roadside Landscape	\$0
6A1		
S46	Paved/Concrete Ditch Maintenance	\$0
S52	Cut Ditch Clean and Repair	\$0
S53	Canyon Cut Ditch Cleaning	(\$400)
S56	Open Surface Drainage Maintenance	(\$200)
S84	Floods & Landslides	\$0

S85	Other Extraordinary	\$0
D58	Detention Pond Maintenance	\$6,000
6A2		
S51	Drainage Program Maintenance	\$5,800
S57	Drainage Inspection	\$0
D61	Special Drain & Struct.	\$16,600
6B1		
S55	Erosion Repair	\$0
7A1		
D62	Structure Maintenance	\$400
7A2		
** S53	Routine Struct. Cleaning	\$100
D59	Special Struct. Repair	\$0
S58	Graffiti Removal	\$100
7A3		
D47	Cattle Guards Maintenance and Repair	\$0
D60	Structure Inspection	\$0
8A1		
D70	Epoxy Striping	\$0
D71	Paint Guidelines (Waterborne & Tape)	\$3,300
D74	Guideline(Removal)	\$0
8A2		
D72	Pavement Messages Maintenance	\$200
D69	Painting Traffic Islands/Parking Lots	\$0
M07	Pavement Marking Projects	\$0
8A3		
S63	Sign and Post Inspection (Annual)	\$0
S64	Sign and Post Maintenance (Routine)	\$1,000
S65	Sign Vandalism Repair	\$0
D73	New Sign Installation	\$0
D78	Interstate Sign Renovation Maintenance	\$0
8A4		
S68	Delineator Post and Reflector Maintenance	\$0
8A5		
S41	Noise Wall Maintenance	
S66	Guardrail Maintenance	\$200
S71	Concrete Barrier Maintenance	\$0
S72	Glare Screen Maintenance	\$0
D77	Attenuator Repair	\$600
8A6		
M10	Lighting Contract	\$0
M20	Interstate Signing	\$0
M50	Contractual Services	\$0
8A7		
D75	Traffic Signals & Highway Lights Maintenance	\$5,300
D76	Traffic Services Maintenance (Special)	\$1,000
8A8		
S69	Sweeping	\$0
8A9		
S43	Maintain & Replacement of Curb & Gutter &/or Shoulder Curb	\$200
S47	Shoulder Curb Maint	\$0
S67	Maint. Traffic Islands	\$0
8A0		
S49	Truck Runaway Lanes Maintenance	\$0
YEARLY TOTAL - Region 3		\$143,200

Conversion to Lane-Miles or Surface Area (12 ft wide-1 mile long section)

BegSta	EndSta	Length Ft	Length Mi	Width Ft	Width 12ft	Tvllanes	Lane-Mile or SA	TvllnMi	SR-68 Design-Build
490	491.83	183	0.034659	56	4.666667	3	0.161742	0.103977	
491.83	496.03	420	0.079545	82	6.833333	6	0.543561	0.477273	
496.03	541.32	4529	0.857765	82	6.833333	7	5.861395	6.004356	
541.32	542.37	105	0.019886	89	7.416667	7	0.147491	0.139205	
542.37	544.73	236	0.044697	93	7.75	7	0.346402	0.312879	
544.73	547.18	245	0.046402	90	7.5	7	0.348011	0.324811	
547.18	557	982	0.185985	101	8.416667	7	1.565372	1.301894	
557	562.6	560	0.106061	108	9	7	0.954545	0.742424	
562.6	568.48	97	0.018371	97	8.083333	7	0.148501	0.128598	
568.48	588	1952	0.369697	81	6.75	7	2.495455	2.587879	
588	593.62	562	0.106439	86.5	7.208333	7	0.767251	0.745076	
593.62	597.66	404	0.076515	96.1	8.008333	7	0.612759	0.535606	
597.66	599.19	153	0.028977	99.5	8.291667	7	0.24027	0.202841	
599.19	600.95	176	0.033333	91.4	7.616667	7	0.253889	0.233333	
600.95	602.81	186	0.035227	101.5	8.458333	8	0.297984	0.281818	
602.81	607.24	443	0.083902	101.5	8.458333	8	0.709667	0.671212	
607.24	611.82	458	0.086742	101.5	8.458333	8	0.733696	0.693939	
611.82	613.57	175	0.033144	101.5	8.458333	8	0.280342	0.265152	
613.57	614.24	67	0.012689	101.5	8.458333	8	0.107331	0.101515	
614.24	615	76	0.014394	103.2	8.6	7	0.123788	0.100758	
615	618.26	326	0.061742	103.2	8.6	7	0.530985	0.432197	
618.26	623.15	489	0.092614	87.5	7.291667	8	0.675308	0.740909	
623.15	645.08	2193	0.415341	86.5	7.208333	7	2.993916	2.907386	
645.08	655.37	1029	0.194886	59	4.916667	7	0.958191	1.364205	
655.37	708	5263	0.99678	86.5	7.208333	7	7.185125	6.977462	
708	725.5	1750	0.331439	81	6.75	7	2.237216	2.320076	
725.5	729.86	436	0.082576	89	7.416667	7	0.612437	0.57803	
729.86	777.76	4790	0.907197	81	6.75	7	6.12358	6.350379	
777.76	781.79	403	0.076326	89	7.416667	7	0.566083	0.53428	
781.79	783	121	0.022917	81	6.75	7	0.154688	0.160417	
783	81.87	672	0.127273	107.4	8.95	9	1.139091	1.145455	
81.87	87.71	584	0.110606	114.6	9.55	9	1.056288	0.995455	
87.71	90.14	243	0.046023	114.6	9.55	9	0.439517	0.414205	
90.14	93.12	298	0.056439	114.6	9.55	9	0.538996	0.507955	
93.12	94.58	146	0.027652	92.7	7.725	7	0.213608	0.193561	
94.58	96.95	237	0.044886	81.7	6.808333	6	0.305601	0.269318	
96.95	105	1740	0.329545	54	4.5	5	1.482955	1.647727	SR-68 Grandview
105	122.4	120	0.022727	58	4.833333	5	0.109848	0.113636	
122.4	123.6	120	0.022727	62	5.166667	5	0.225063	0.217803	
123.6	125.9	230	0.043561	64	5.333333	5	0.060606	0.056818	
125.9	126.5	60	0.011364	54	4.5	5	2.855114	3.172348	
126.5	160	3350	0.63447	58	4.833333	5	0.164773	0.170455	
160	161.8	180	0.034091	62	5.166667	5	0.303346	0.293561	
161.8	164.9	310	0.058712						

7.003598

47.63176

47.51818

Total New

15.17446

14.0072

Existing

32.4573

33.51098

New

7

ESTIMATED
BUDGET IMPACT
for FY2011

ACTIVITY SR-77 DESCRIPTION

REGION 3

1A1		2008
S78	Snow and Ice Control	\$10,300
S78	Snow Removal (O.T.)	\$0
S79	Snow Fence, Mark & BBLs	\$0
S80	Snow and Ice Control (Other)	\$100
D81	Snow (Open Closed Roads)	\$0
D82	Special Snow Maintenance	\$0
D83	Avalanche Control	\$0
M95	On Call	\$0
2A1		
S01	Bituminous Pothole and Severe Depression Patching	\$100
S03	Treat Bleeding Pavement	\$0
S05	Minor Flushing Projects	\$0
D06	Bituminous Surface Replacement	\$0
D07	Bituminous lane and/or Shoulder Leveling	\$0
D10	Bituminous Base Repair	\$0
D12	Bituminous Asphalt Surface Rejuvenation	\$100
D13	Bituminous Surf. & Shoulder Maint. (Special)	\$0
D22	Bituminous Planning	\$0
M04	Betterment	\$800
2A2		
S02	Bituminous Crack Sealing	\$500
D08	Bituminous Seal Coat (Chip Seal)	\$1,900
D09	Bituminous Flush Coat	\$200
2B1		
D14	PCC Pavement using PCC Material	\$700
D17	Level Concrete (L & S)	\$0
D15	PCC Pavement Cleaning and Sealing of Hot Poured & Silicon	\$0
D16	PCC Crack Sealing	\$0
D19	PCC Pavement Bituminous Patching	\$0
D20	Spec PCC Surf Maint.	\$0
3A1		
S22	Non-Hard Surface Road Maintenance	\$0
S28	Non-Hard Shoulder Maintenance	\$0
S29	Other Routine Non-Hard Shoulder	\$0
D30	Non-Hard Shoulder Maintenance (Special)	\$0
D48	Special Roadside Maint.	\$0
4A1		
S39	Litter Control (Annual)	\$0
S38	Annual Litter	\$0
S70	Other Routine Traffic	\$0
S45	Routine Roadside (Other)	\$0
4A2		
S54	Rock Removal	\$0
4A3		
7S44	Fence Maintenance and Repair	\$1,400
5A1		
D34	Vegetation Control (CHEMICAL)	\$0
D36	Special Vegetation Control	\$0
5A2		
D35	Vegetation Control: Cutting Brush Trimming & Removing Trees	\$0
S33	Vegetation Control (Other)	\$0
D46	Seeding	\$0
5A3		
S32	Mowing	(\$200)
5A4		
M12	Vegetation Management	\$0
5B1		
S42	Roadside Landscape	\$0
6A1		
S46	Paved/Concrete Ditch Maintenance	\$0
S52	Cul Ditch Clean and Repair	\$0
S53	Canyon Cul Ditch Cleaning	\$0
S56	Open Surface Drainage Maintenance	\$0
S84	Floods & Landslides	\$100

S65	Other Extraordinary	\$0
D58	Detention Pond Maintenance	\$6,000
6A2		
S51	Drainage Program Maintenance	\$200
S57	Drainage Inspection	\$0
D61	Special Drain & Struct.	\$500
6B1		
S55	Erosion Repair	\$0
7A1		
D62	Structure Maintenance	\$500
7A2		
** S53	Routine Struct. Cleaning	\$100
D59	Special Struct. Repair	\$0
S58	Graffiti Removal	\$100
7A3		
D47	Cattle Guards Maintenance and Repair	\$0
D60	Structure Inspection	\$0
8A1		
D70	Epoxy Striping	\$0
D71	Paint Guidelines (Waterborne & Tape)	\$1,500
D74	Guideline(Removal)	\$0
8A2		
D72	Pavement Messages Maintenance	\$100
D69	Painting Traffic Islands/Parking Lots	\$200
M07	Pavement Marking Projects	\$0
8A3		
S63	Sign and Post Inspection (Annual)	\$0
S64	Sign and Post Maintenance (Routine)	\$1,000
S65	Sign Vandalism Repair	\$0
D73	New Sign Installation	\$0
D78	Interstate Sign Renovation Maintenance	\$0
8A4		
S68	Delineator Post and Reflector Maintenance	\$0
8A5		
S41	Noise Wall Maintenance	
S66	Guardrail Maintenance	\$400
S71	Concrete Barrier Maintenance	\$0
S72	Glare Screen Maintenance	\$0
D77	Attenuator Repair	\$1,100
8A6		
M10	Lighting Contract	\$0
M20	Interstate Signing	\$0
M50	Contractual Services	\$0
8A7		
D75	Traffic Signals & Highway Lights Maintenance	\$10,600
D76	Traffic Services Maintenance (Special)	\$1,900
8A8		
S69	Sweeping	\$0
8A9		
S43	Maintain & Replacement of Curb & Gutter &/or Shoulder Curb	\$500
S47	Shoulder Curb Maint	\$0
S67	Maint. Traffic Islands	\$800
8A0		
S49	Truck Runaway Lanes Maintenance	\$0
YEARLY TOTAL - Region 3		\$41,500

ESTIMATED
BUDGET IMPACT
for FY2011

ACTIVITY SR-92 DESCRIPTION

REGION 3

1A1		2008
S78	Snow and Ice Control	\$69,300
S78	Snow Removal (O.T.)	\$0
S79	Snow Fence, Mark & BBLs	\$1,200
S80	Snow and Ice Control (Other)	\$700
D81	Snow (Open Closed Roads)	\$0
D82	Special Snow Maintenance	\$0
D83	Avalanche Control	\$0
M95	On Call	\$0
2A1		
S01	Bituminous Pothole and Severe Depression Patching	\$0
S03	Treat Bleeding Pavement	\$0
S05	Minor Flushing Projects	\$0
D06	Bituminous Surface Replacement	\$0
D07	Bituminous Lane and/or Shoulder Leveling	\$0
D10	Bituminous Base Repair	\$0
D12	Bituminous Asphalt Surface Rejuvenation	\$0
D13	Bituminous Surf. & Shoulder Maint. (Special)	\$0
D22	Bituminous Planning	\$0
M04	Betterment	\$0
2A2		
S02	Bituminous Crack Sealing	\$0
D08	Bituminous Seal Coat (Chip Seal)	\$0
D09	Bituminous Flush Coat	\$0
2B1		
D14	PCC Pavement using PCC Material	\$75,600
D17	Level Concrete (L & S)	\$0
D15	PCC Pavement Cleaning and Sealing of Hot Poured & Silicon	\$0
D16	PCC Crack Sealing	\$0
D19	PCC Pavement Bituminous Patching	\$1,300
D20	Spec PCC Surf Maint.	\$0
3A1		
S22	Non-Hard Surface Road Maintenance	\$0
S28	Non-Hard Shoulder Maintenance	\$0
S29	Other Routine Non-Hard Shoulder	\$0
D30	Non-Hard Shoulder Maintenance (Special)	\$0
D48	Special Roadside Maint.	\$0
4A1		
S39	Litter Control (Annual)	\$13,500
S38	Annual Litter	\$3,100
S70	Other Routine Traffic	\$0
S45	Routine Roadside (Other)	\$2,500
4A2		
S54	Rock Removal	\$0
4A3		
7S44	Fence Maintenance and Repair	\$0
5A1		
D34	Vegetation Control (CHEMICAL)	\$500
D36	Special Vegetation Control	\$0
5A2		
D35	Vegetation Control: Cutting Brush Trimming & Removing Trees	\$400
S33	Vegetation Control (Other)	\$500
D46	Seeding	\$0
5A3		
S32	Mowing	\$1,300
5A4		
M12	Vegetation Management	\$100
5B1		
S42	Roadside Landscape	\$100
6A1		
S46	Paved/Concrete Ditch Maintenance	\$0
S52	Cut Ditch Clean and Repair	\$0
S53	Canyon Cut Ditch Cleaning	\$0
S56	Open Surface Drainage Maintenance	\$0
S84	Floods & Landslides	\$100

S85	Other Extraordinary	\$0
D58	Detention Pond Maintenance	\$12,100
6A2		
S51	Drainage Program Maintenance	\$7,000
S57	Drainage Inspection	\$0
D61	Special Drain & Struct.	\$20,000
6B1		
S55	Erosion Repair	\$0
7A1		
D62	Structure Maintenance	\$4,700
7A2		
S53	Routine Struct. Cleaning	\$1,000
D59	Special Struct. Repair	\$0
S58	Graffiti Removal	\$1,000
7A3		
D47	Cattle Guards Maintenance and Repair	\$0
D60	Structure Inspection	\$100
8A1		
D70	Epoxy Striping	\$0
D71	Paint Guidelines (Waterborne & Tape)	\$8,500
D74	Guideline(Removal)	\$0
8A2		
D72	Pavement Messages Maintenance	\$1,300
D69	Painting Traffic Islands/Parking Lots	\$0
M07	Pavement Marking Projects	\$0
8A3		
S63	Sign and Post Inspection (Annual)	\$200
S64	Sign and Post Maintenance (Routine)	\$12,700
S65	Sign Vandalism Repair	\$200
D73	New Sign Installation	\$700
D78	Interstate Sign Renovation Maintenance	\$1,200
8A4		
S68	Delineator Post and Reflector Maintenance	\$0
8A5		
S41	Noise Wall Maintenance	
S66	Guardrail Maintenance	\$0
S71	Concrete Barrier Maintenance	\$2,400
S72	Glare Screen Maintenance	\$0
D77	Attenuator Repair	\$800
8A6		
M10	Lighting Contract	\$4,800
M20	Interstate Signing	\$0
M50	Contractual Services	\$0
8A7		
D75	Traffic Signals & Highway Lights Maintenance	\$26,600
D76	Traffic Services Maintenance (Special)	\$4,800
8A8		
S69	Sweeping	\$21,300
8A9		
S43	Maintain & Replacement of Curb & Gutter &/or Shoulder Curb	\$0
S47	Shoulder Curb Maint	\$0
S67	Maint. Traffic Islands	\$200
8A0		
S49	Truck Runaway Lanes Maintenance	\$0
YEARLY TOTAL - Region 3		\$301,800

D61	Special Drain & Struct.	\$38,800
6B1		
S55	Erosion Repair	\$1,000
7A1		
D62	Structure Maintenance	\$0
7A2		
** S53	Routine Struct. Cleaning	\$500
D59	Special Struct. Repair	\$0
S58	Graffiti Removal	\$500
7A3		
D47	Cattle Guards Maintenance and Repair	\$0
D60	Structure Inspection	\$100
8A1		
D70	Epoxy Striping	\$0
D71	Paint Guidelines (Waterborne)	\$0
D74	Guideline(Removal)	\$0
8A2		
D72	Pavement Messages Maintenance	\$4,000
D69	Painting Traffic Islands/Parking Lots	\$700
M07	Pavement Marking Projects	\$0
8A3		
S63	Sign and Post Inspection (Annual)	\$100
S64	Sign and Post Maintenance (Routine)	\$5,400
S65	Sign Vandalism Repair	\$100
D73	New Sign Installation	\$500
D78	Interstate Sign Renovation Maintenance	\$2,000
8A4		
S68	Delineator Post and Reflector Maintenance	\$1,700
8A5		
S41	Noise Wall Maintenance	\$0
S66	Guardrail Maintenance	\$0
S71	Concrete Barrier Maintenance	\$0
S72	Glare Screen Maintenance	\$0
D77	Attenuator Repair	\$2,800
8A6		
M10	Lighting Contract	\$3,100
M20	Interstate Signing	\$0
M50	Contractual Services	\$0
8A7		
D75	Traffic Signals & Highway Lights Maintenance	\$29,200
D76	Traffic Services Maintenance (Special)	\$5,300
8A8		
S69	Sweeping	\$13,500
8A9		
S43	Maintain & Replacement of Curb & Gutter &/or Shoulder Curb	\$700
S47	Shoulder Curb Maint	\$0
S67	Maint. Traffic Islands	\$3,000
8A0		
S49	Truck Runaway Lanes Maintenance	\$0
YEARLY TOTAL - Region 3		\$263,100

ESTIMATED
BUDGET IMPACT
for FY2011

ACTIVITY 2100 North DESCRIPTION

REGION 3

		Total	
1A1			
S78	Snow and Ice Control	\$48,200	1.75
S78	Snow Removal (O.T.)	\$0	
S79	Snow Fence, Mark & BBLs	\$0	
S80	Snow and Ice Control (Other)	\$500	
D81	Snow (Open Closed Roads)	\$0	
D82	Special Snow Maintenance	\$0	
D83	Avalanche Control	\$0	
M95	On Call	\$0	
2A1			
S01	Bituminous Pothole and Severe Depression Patching	\$500	
S03	Treat Bleeding Pavement	\$0	
S05	Minor Flushing Projects	\$0	
D06	Bituminous Surface Replacement	\$200	
D07	Bituminous lane and/or Shoulder Leveling	\$100	
D10	Bituminous Base Repair	\$200	
D12	Bituminous Asphalt Surface Rejuvenation	\$500	
D13	Bituminous Surf. & Shoulder Maint. (Special)	\$100	
D22	Bituminous Planning	\$200	
M04	Betterment	\$4,100	
2A2			
S02	Bituminous Crack Sealing	\$2,400	
D08	Bituminous Seal Coat (Chip Seal)	\$9,300	
D09	Bituminous Flush Coat	\$1,100	
2B1			
D14	PCC Pavement using PCC Material	\$1,100	
D17	Level Concrete (L & S)	\$0	
D15	PCC Pavement Cleaning and Sealing of Hot Poured & Silicon	\$0	
D16	PCC Crack Sealing	\$0	
D19	PCC Pavement Bituminous Patching	\$0	
D20	Spec PCC Surf Maint.	\$0	
3A1			
S22	Non-Hard Surface Road Maintenance	\$0	
S28	Non-Hard Shoulder Maintenance	\$0	
S29	Other Routine Non-Hard Shoulder.	\$0	
D30	Non-Hard Shoulder Maintenance (Special)	\$0	
D48	Special Roadside Maint.	\$0	
4A1			
S39	Litter Control (Annual)	\$10,800	
S38	Annual Litter	\$2,500	
S70	Other Routine Traffic	\$0	
S45	Routine Roadside (Other)	\$4,000	
4A2			
S54	Rock Removal	\$400	
4A3			
7S44	Fence Maintenance and Repair	\$300	
5A1			
D34	Vegetation Control (CHEMICAL)	\$800	
D36	Special Vegetation Control	\$0	
6A2			
D35	Vegetation Control: Cutting Brush Trimming & Removing Trees	\$600	
S33	Vegetation Control (Other)	\$800	
D46	Seeding	\$0	
6A3			
S32	Mowing	\$2,000	
6A4			
M12	Vegetation Management	\$200	
5B1			
S42	Roadside Landscape	\$200	
6A1			
S46	Paved/Concrete Ditch Maintenance	\$200	
S52	Cut Ditch Clean and Repair	\$0	
S53	Canyon Cut Ditch Cleaning	\$1,900	
S56	Open Surface Drainage Maintenance	\$1,000	
S84	Floods & Landslides	\$100	
S65	Other Extraordinary	\$0	
D58	Detention Pond Maintenance	\$42,300	
6A2			
S51	Drainage Program Maintenance	\$13,500	
S57	Drainage Inspection	\$0	

Conversion to Lane-Miles or Surface Area (12 ft wide-1 mile long section)

BegSta	EndSta	Length Ft	Length Mi	Width Ft	Width 12ft	No Lanes	Lane-Mile or SA	Lane*Mi	Pioneer Crossing
600	807	20700	3.920455	72	6	7	23.52273	27.44318	
807	880	7300	1.382576	96	8	9	11.06061	12.44318	
880	903	2300	0.435606	96	8	8	3.484848	3.484848	
			5.738636				38.06818	43.37121	Total

REQUEST FOR INCREASE IN FUNDS FOR FY 2011 BUDGET

Prepare separate Forms 400 for each budget increase - Attach Form 400A with each Form 400

Description:	Maintenance Cost Increase - Region 3 - Pioneer Crossing and north Utah County - due to added features	Priority No. 1-A
Program Name:	Check One: Ongoing One-time <input checked="" type="checkbox"/> X	Legislation Needed? No
<p><i>Please provide a detailed description of this request including the problem or need this request will resolve. (all financial calculations should be included on Form 400A)</i></p> <p>115 lane-miles of additional roadway will be added to the state system in north Utah County during FY2010 that require routine maintenance activities. This number includes lane-miles added from pioneer Crossing, Lehi 2100 North, SR-92, SR-77, and Redwood Road Salt Lake County. In order to maintain these additional pavements and roadways in an acceptable operating condition additional funding is needed. It is imperative that these investments in infrastructure be maintained to ensure safety for the traveling public.</p> <p><i>What changes in program(s), service(s), expenditure(s), fee(s), etc. will be made if this request is not funded?</i></p> <p>If this request is not funded the level of service on Utah roads will decrease since the added lane miles will dilute resources availability to for maintenance needs on all roads in the state system. New pavements , safety features, bridges, and roadside appurtenances will require service. Existing roads will continue to require maintenance. Maintenance crews will be constrained by having to spread existing work hours, equipment, and funding to cover more lane-miles. The result will be decreased service levels.</p> <p><i>Indicate any additional funding above the amount being requested that might be required for this request in future years:</i></p> <p>Future growth in the number of lane-miles maintained will further reduce funding available for maintaining the existing system. As long as capacity improvements are made by adding lanes, safety improvements, adding freeway interchanges, and widening roads, there will be additional physical features to maintain. Maintaining these added pavements requires additional funding to maintain current levels of service.</p>		
<p><i>What are the goal(s), objective(s), and performance measure(s) that directly relate to this request; and how will they be impacted?</i></p> <p>Following the philosophy that "Good Roads Cost Less", UDOT's goal is to preserve and maintain the transportation infrastructure. UDOT annually establishes a level of service for each roadway in the state. These target service levels are based on traffic volume, safety considerations, and integration of the roadway in the overall state transportation system. A key element of system preservation is proactive maintenance. Proactive maintenance consists of those activities done on a routine basis to keep the road network functioning safely, including filling potholes, cleaning drains, paint striping, and snow removal. Attainment of service levels and defining proactive maintenance activities is measured using the Maintenance Management Quality Assurance (MMQA) program</p>		
<p><i>Please fill out this section if this request is mandatory (mandatory requests are more likely to be funded)</i></p> <p><i>What is the authority reference mandating this request? (i.e. federal law, state law, court action, governor's initiative)</i></p> <p><i>Describe why you think this request meets a mandatory definition. (public health and safety requests must constitute an emergency or critical need)</i></p>		

Department:

Transportation

Contact: Richard Clarke**Line Item/Division:****Phone Number:** 801-965-4120

REQUEST FOR INCREASE IN FUNDS FOR FY 2011 BUDGET - SUPPORTING DETAIL

Attach additional supporting detail if necessary

Description:	Maintenance Cost Increase - Region 3 - Pioneer Crossing and north Utah County - due to added features	Priority No. 1-A
Program Name:	0 Check One: Ongoing One-time <input checked="" type="checkbox"/> Legislation Needed? No	
<i>Provide a three-year history and two-year projection of the workload, caseload, or other measure for this program or service:</i>		
FY 2008 Actual:	FY 2011 Projected Total:	\$6,306,500
FY 2009 Actual:	FY 2012 Projected Total:	
FY 2010 Actual:	FY 2011 Projected % Increase:	
<p><i>In the space below, show computation details outlining how the requested amount is determined. Include FTE needed & the payroll cost for each; additional space requirements; the types and amounts of equipment and related cost; the number of individuals served by the request and the annual service cost per individual; and similar data for all other expenses.</i></p> <p>Estimated cost increase due to transportation system improvement is calculated by determining the number of additional items requiring maintenance then multiplying by three-year average statewide unit cost to maintain those items during FY2007-2009. FY2009 is the last full reporting year available at the time the estimate was prepared.</p> <p>No indirect charges were included as it is assumed that station operating costs, such items as utilities, building repair, training, leave, fixed equipment costs, etc, will not increase significantly due to increasing workload</p> <p>Costs for each type road component, such things as pavement, guardrail, drains, signs, paint striping, are summed for each region and the total estimated cost increased is summed.</p> <p>For ease of presentation, the number of lane-miles of added pavement was selected to represent the diverse costs going into the total cost. This was done to allow a representative measure of changes rather than requiring the reader to plow through pages of breakouts. Additional features are derived from projects published in the FY2010 Statewide Transportation Improvement Plan, each of which has a potential of 80 classes of additional items requiring maintenance. To present this data in other than a condensed representation would burden the reader.</p> <p>The increases are presented by region with an accompanying map that shows relative geographic distribution of added pavements.</p> <p>Individuals served Road users in all twenty nine counties where major and minor projects added roadway features requiring maintenance.</p>		

Budget Increase Summary

Financing	FY 2011
General Fund	
School Funds	
Transportation Fund	6,306,500
Federal Funds	
Dedicated Credits	
Restricted Funds	
Transfers (specify)	
Other (specify)	
Beginning Balance	
Total Financing	\$6,306,500

Expenditures	FY 2011
Personal Services	
In-State Travel	
Out-of-State Travel	
Current Expense	6,306,500
DP Current Expense	
DP Capital	
Capital Outlay	
Pass Thru/Other	
Total Expenditures	\$6,306,500
Positions:	

Percentage Increase of Request

FY2011 Base Budget for this Program	
FY2011 Requested % Increase	0.0%

Department: Transportation

Contact: Richard Clarke

Line Item/Division:

Phone Number: 801-965-4120

**TRAFFIC SIGN
RETROREFLECTIVITY
COMPLIANCE**

Traffic Sign Retroreflectivity Compliance

FHWA published a new “**Maintaining Sign Retroreflectivity**” rule effective Jan. 22, 2008, as a supplement to the *Manual on Uniform Traffic Control Devices (MUTCD)*.. UDOT must establish and implement a sign assessment or management method to maintain minimum levels of sign retroreflectivity by January 2012. This request details how UDOT will manage sign retroreflectivity.

Fiscal Year	Activity	Amount
FY2011	Inventory, Assessment, Prepare Sign Replacement Maintenance Method, Begin Ground-mounted Sign Replacement	\$700,000

Routine replacement of damaged, vandalized or knocked down signs is not included. Current program averages \$2,100,000 per year.

Prepared by: L. Bernhard
801-243-9624

6 Aug 2009

Traffic Sign Retroreflectivity Compliance

FHWA published a new “**Maintaining Sign Retroreflectivity**” rule effective Jan. 22, 2008, as a supplement to the *Manual on Uniform Traffic Control Devices (MUTCD)*... UDOT must establish and implement a sign assessment or management method to maintain minimum levels of sign retroreflectivity by January 2012. This request details how UDOT will manage sign retroreflectivity. The compliance date for meeting retroreflectivity standards for regulatory, warning, and ground-mounted guide signs is January 2015. For overhead guide signs and street name signs compliance must be made by January 2018. UDOT may exempt from the rule brown series signs, most blue series signs, and parking regulation signs.

Total current replacement cost of UDOT sign faces is \$17,300,000. By using warranted sign sheeting material and tracking installation dates the expected service life of new sign faces meeting the retroreflectivity rule is twelve years. Most signs installed during recent reconstruction and new construction comply with the retroreflectivity standards. About 20% of other existing signs may comply as well. Our plan is to replace one-third of noncompliant sign faces annually during FY2012 through FY2014. Noncompliant overhead signs will be replaced or illuminated during FY2015 to FY2017.

Fiscal Year	Activity	Amount
FY2011	Inventory, Assessment, Prepare Sign Replacement Maintenance Method, Begin Ground-mounted Sign Replacement	\$700,000
		\$1,800,000
FY2012	Ground mounted sign replacement	\$1,800,000
FY2013	Ground mounted sign replacement	\$1,800,000
FY2014	Ground mounted sign replacement	\$1,800,000
FY2015	Overhead mounted sign replacement or illumination	\$ 700,000
FY2016	Overhead mounted sign replacement or illumination	\$ 700,000
FY2017	Overhead mounted sign replacement or illumination	\$ 700,000
FY2018 >	Replace signs that were compliant in 2012	\$ 200,000 per year

Routine replacement of damaged, vandalized or knocked down signs is not included. Current program averages \$2,100,000 per year.

REQUEST FOR INCREASE IN FUNDS FOR FY 2011 BUDGET

Prepare separate Forms 400 for each budget increase - Attach Form 400A with each Form 400

Description: Traffic Sign Retroreflectivity Compliance		Priority No. 2
Program Name:	Check One: Ongoing <input checked="" type="checkbox"/> One-time <input type="checkbox"/>	Legislation Needed? No <input type="checkbox"/>
<p><i>Please provide a detailed description of this request including the problem or need this request will resolve. (all financial calculations should be included on Form 400A)</i></p> <p>FHWA published a new "Maintaining Sign Retroreflectivity" rule on Dec. 21, 2007 and effective Jan. 22, 2008, that supplements the Manual on Uniform Traffic Control Devices (MUTCD) requirements for maintenance of sign retroreflectivity. Agencies have until January 2012 to establish and implement a sign assessment or management method to maintain minimum levels of sign retroreflectivity. The compliance date for meeting the minimum retroreflectivity requirements for regulatory, warning, and ground-mounted guide signs is January 2015. For overhead guide signs and street name signs, the compliance date is January 2018. The new rule does not apply to brown signs, most blue signs, or parking regulation signs.</p> <p>The current total replacement cost of UDOT sign faces is \$ 17,800,000. By using warranted sign sheeting material and tracking installation dates, the expected service life of new sign faces installed to meet FHWA requirements is 12 years. Most signs recently installed as part of major construction and reconstruction projects comply with retroreflectivity standards. About 20% of other existing signs may comply. Our plan is to replace one third of noncompliant surface signs each year from FY2012 to FY2014. Noncompliant overhead signs will be replaced or illuminated.</p> <p><i>What changes in programs, service(s), expenditure(s), fee(s), etc. will be made if this request is not funded?</i></p> <p>Compliance with MUTCD Retroreflectivity Standards is required by federal law. If this program is not funded, funds for sign retroreflectivity management and replacement will be diverted from other maintenance activities. Since compliance is mandatory, funding will be taken from existing programs and needs. The resulting shortfall in other activities will be taken from hard pavement maintenance and roadside maintenance activities. Activities whose budget is reduced will suffer from decreased maintenance and a decreased level of service. Deterioration will be cumulative and deferred activities will cost more in the future to remediate.</p> <p><i>Indicate any additional funding above the amount being requested that might be required for this request in future years:</i></p> <p>Additional funding will be required for FY2012 through FY2017 for sign face replacement. From FY2018 onward sign faces will be managed and replaced at a higher retroreflectivity level than UDOT has maintained in the past. Ongoing sign face retroreflectivity assessment is required to comply with federal law.</p>		
<p><i>What are the goals, objectives, and performance measures that directly relate to this request; and how will they be impacted?</i></p> <p>Currently UDOT has no retroreflectivity standards for road signs. New retroreflectivity standards complying with federal standards will be adopted for use in the department. Minimum Retroreflectivity levels are not negotiable. Standards are published in MUTCD Table 2A-3. Details of actual retroreflectance levels are not included in this document</p>		
<p>Please fill out this section if this request is mandatory (mandatory requests are more likely to be funded)</p> <p><i>What is the authority reference mandating this request? (i.e. federal law, state law, court action, governor's initiative)</i></p> <p>The authority for this request is Title 23, United States Code, Section 109(d) (23 USC 109(d)) and Title 23, Code of Federal Regulations, Part 655.60 (23 CFR 655.60).</p> <p><i>Describe why you think this request meets a mandatory definition. (public health and safety requests must constitute an emergency or critical need)</i></p> <p>The Manual on Uniform Traffic Control Devices (MUTCD) is adopted by reference under title 23, United States Code, Section 109(d) and Title 23, Code of Federal Regulations, Part 655.60. Compliance with MUTCD is mandated by federal law for roads used by the public in the United States</p>		

Department:

Transportation

Contact: Richard Clarke

Line Item/Division:

Phone Number: 801 965-4120

REQUEST FOR INCREASE IN FUNDS FOR FY 2011 BUDGET - SUPPORTING DETAIL

Attach additional supporting detail if necessary

Description: Traffic Sign Retroreflectivity Compliance		Priority No. 2																														
Program Name:	Check One: Ongoing <input checked="" type="checkbox"/> One-time <input type="checkbox"/>	Legislation Needed? No																														
<i>Provide a three-year history and two-year projection of the workload, caseload, or other measure for this program or service:</i>																																
FY 2008 Actual:	FY 2011 Projected Total:	\$700,000																														
FY 2009 Actual:	FY 2012 Projected Total:																															
FY 2010 Actual:	FY 2011 Projected % Increase:	0.0%																														
<i>In the space below, show computation details outlining how the requested amount is determined. Include FTE needed & the payroll cost for each; additional space requirements; the types and amounts of equipment and related cost; the number of individuals served by the request and the annual service cost per individual; and similar data for all other expenses.</i>																																
<p>Sign Retroreflectivity Program</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Activity</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>FY2011</td> <td>Inventory, Assessment, Prepare Sign Replacement Maintenance Method, Begin Surface Sign Replacement</td> <td>\$700,000</td> </tr> <tr> <td>FY2012</td> <td>Surface Sign Replacement</td> <td>\$1,800,000</td> </tr> <tr> <td>FY2013</td> <td>Surface Sign Replacement</td> <td>\$1,800,000</td> </tr> <tr> <td>FY2014</td> <td>Surface Sign Replacement</td> <td>\$1,800,000</td> </tr> <tr> <td></td> <td>Replacement of UDOT-owned work zone signs and devices</td> <td>\$1,200,000</td> </tr> <tr> <td>FY2015</td> <td>Overhead Interstate Sign Replacement or lighting</td> <td>\$800,000</td> </tr> <tr> <td>FY2016</td> <td>Overhead Interstate Sign Replacement</td> <td>\$800,000</td> </tr> <tr> <td>FY2017</td> <td>Overhead Interstate Sign Replacement</td> <td>\$800,000</td> </tr> <tr> <td>FY2018 ></td> <td>Replace Signs that were compliant in</td> <td>\$200,000</td> </tr> </tbody> </table> <p>Signs will be assess in the field. Only signs that do not meet the requirements of MUTCD Table 2A-3 will have faces replaced. It is intended that sign faces only will be replaced. Sign frames or mountings required will be funded through normal maintenance funding.</p>			Year	Activity	Amount	FY2011	Inventory, Assessment, Prepare Sign Replacement Maintenance Method, Begin Surface Sign Replacement	\$700,000	FY2012	Surface Sign Replacement	\$1,800,000	FY2013	Surface Sign Replacement	\$1,800,000	FY2014	Surface Sign Replacement	\$1,800,000		Replacement of UDOT-owned work zone signs and devices	\$1,200,000	FY2015	Overhead Interstate Sign Replacement or lighting	\$800,000	FY2016	Overhead Interstate Sign Replacement	\$800,000	FY2017	Overhead Interstate Sign Replacement	\$800,000	FY2018 >	Replace Signs that were compliant in	\$200,000
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FY2017	Overhead Interstate Sign Replacement	\$800,000																														
FY2018 >	Replace Signs that were compliant in	\$200,000																														

Budget Increase Summary

Financing	FY 2011
General Fund	
School Funds	
Transportation Fund	700,000
Federal Funds	
Dedicated Credits	
Restricted Funds	
Transfers (specify)	
Other (specify)	
Beginning Balance	
Total Financing	\$700,000

Expenditures	FY 2011
Personal Services	
In-State Travel	
Out-of-State Travel	
Current Expense	700,000
DP Current Expense	
DP Capital	
Capital Outlay	
Pass Thru/Other	
Total Expenditures	\$700,000
Positions:	0.0

Percentage Increase of Request	
FY11 Base Budget for this Program	0
FY11 Requested % Increase	0.0%

Department:

Transportation

Contact: Richard Clarke**Line Item/Division:****Phone Number:** 801 965-4120

TOWFLOW DEPLOYMENT

TowPlow Deployment

UDOT tested a Viking-Cives TowPlow during the winter of 2008-2009. The test was successful in both urban and rural areas. The TowPlow is a trailer-mounted snow plow with spreader that can be steered into the lane adjacent to the lane the truck is clearing, making it possible for one driver to clear two full lanes at once. We found that the additional width of the plow resulted in a 75% reduction in labor and equipment costs required to clear snow. Fuel consumption was 10% greater. From our tests it makes business and operational sense to deploy more of these units among the existing snow plow fleet. We estimate that overall plow costs will be reduced in the areas where the TowPlow systems are deployed by \$35,000 per year per unit.

This request is for one-time equipment purchase of ten TowPlow units. Three units each will be assigned to Region 1 and 2 for use on high volume interstate roads. Two units will be assigned to Region 3 for use in Utah and Juab County, and two units would be assigned to Region 4 for use on I-15 and I-70. These units will be in addition to existing truck-mounted plows. No additional employees will be required to operate the enhanced plow units. No new trucks would be procured to pull the TowPlow; however normal planned replacement vehicles will be ordered with larger capacity hydraulic systems and enhanced tire and brake systems. TowPlows will be used to offset increases in surface areas resulting from recent and anticipated new construction and lane-gain projects.

Estimated one-time equipment purchase:

10 TowPlow units @ \$110,000 each	= \$1,100,000
10 modified plow truck packages @ \$15,000 each	= \$ 150,000

Total FY2011 Request - \$1,250,000

Prepared by:

L. Bernhard
801-243-9624

11 Aug 2009

REQUEST FOR INCREASE IN FUNDS FOR FY 2011 BUDGET

Prepare separate Forms 400 for each budget increase - Attach Form 400A with each Form 400

Description: TowPlow Implementation		Priority No. 3
Program Name:	Check One: Ongoing One-time <input checked="" type="checkbox"/> X	Legislation Needed? NO
<p><i>Please provide a detailed description of this request including the problem or need this request will resolve. (all financial calculations should be included on Form 400A)</i></p> <p>This request is intended to partially offset the need for additional manpower and equipment needed to clear snow from additional lane-miles added due to new construction and lane-gain projects. UDOT tested a Viking-Cives TowPlow during the winter of 2008-2009. The TowPlow is a trailer-mounted snow plow with spreader that can be steered into the lane adjacent to the lane the truck is clearing, making it possible for one driver to clear two full lanes at once. The test was successful in both urban and rural areas. We found that the additional width of the plow resulted in a 75% reduction in labor and equipment costs required to clear snow. Fuel consumption was 10% greater. From our tests it makes business and operational sense to deploy more of these units among the existing snow plow fleet. We estimate that overall plow costs will be reduced in the areas where the TowPlow systems are deployed by \$35,000 per year per unit.</p> <p>This request is for one-time equipment purchase of ten TowPlow units. Three units each will be assigned to Region 1 and 2 for use on high volume interstate roads. Two units will be assigned to Region 3 for use in Utah and Juab County, and two units would be as</p> <p><i>What changes in program(s), service(s), expenditure(s), fee(s), etc. will be made if this request is not funded?</i></p> <p>Not funding this request will result in lowered levels of snow removal service in the areas when the plows were to be deployed. Traffic safety may be impacted due to roads not being cleared as promptly as before. Traffic mobility will be reduced during and after snow storms. Travel time during snow events will be increased in the affected areas, which are mainly urban interstates and rural mountain passes.</p> <p><i>Indicate any additional funding above the amount being requested that might be required for this request in future years:</i></p>		
<p><i>What are the goal(s), objective(s), and performance measure(s) that directly relate to this request; and how will they be impacted?</i></p> <p>MMQA snow measurement will reflect lower scores due to longer return plowing cycles. UDOT's goal is to maintain roads so that travel is not impeded due to snow and ice events.</p>		
<p>Please fill out this section if this request is mandatory (mandatory requests are more likely to be funded)</p> <p><i>What is the authority reference mandating this request? (i.e. federal law, state law, court action, governor's initiative,</i></p> <p><i>Describe why you think this request meets a mandatory definition. (public health and safety requests must constitute an emergency or critical need)</i></p>		

Department:**Transportation****Contact: Richard Clarke****Line Item/Division:****Phone Number: 801 965-4120**

REQUEST FOR INCREASE IN FUNDS FOR FY 2011 BUDGET - SUPPORTING DETAIL

Attach additional supporting detail if necessary

Description: TowPlow Implementation		Priority No. 3
Program Name:	Check One: Ongoing <input type="checkbox"/> One-time <input checked="" type="checkbox"/> X	Legislation Needed? NO
<i>Provide a three-year history and two-year projection of the workload, caseload, or other measure for this program or service:</i>		
FY 2008 Actual:	FY 2011 Projected Total:	
FY 2009 Actual:	FY 2012 Projected Total	
FY 2010 Actual:	FY 2011 Projected % Increase:	0.0%

*In the space below, show **computation details** outlining how the requested amount is determined. Include FTE needed & the payroll cost for each; additional space requirements; the types and amounts of equipment and related cost; the number of individuals served by the request and the annual service cost per individual; and similar data for all other expenses.*

UDOT tested a Viking-Cives TowPlow during the winter of 2008-2009. The test was successful in both urban and rural areas. We found that the additional width of the plow resulted in a 75% reduction in labor and equipment costs required to clear snow. Fuel consumption was 10% greater. From our tests it makes business and operational sense to deploy more of these units among the existing snow plow fleet. We estimate that overall plow costs will be reduced in the areas where the TowPlow systems are deployed by \$35,000 per year per unit.

Estimated one-time equipment purchase:

TowPlow units @ \$110,000 each	10 ea	\$1,100,000
Modified plow truck packages @ \$15,000 each	10 ea	\$150,000
Total FY2011 Request		\$1,250,000

Budget Increase Summary

Financing	FY 2011
General Fund	
School Funds	
Transportation Fund	1,250,000
Federal Funds	
Dedicated Credits	
Restricted Funds	
Transfers (specify)	
Other (specify)	
Beginning Balance	
Total Financing	\$1,250,000

Expenditures	FY 2011
Personal Services	
In-State Travel	
Out-of-State Travel	
Current Expense	1,250,000
DP Current Expense	
DP Capital	
Capital Outlay	
Pass Thru/Other	
Total Expenditures	\$1,250,000
Positions:	

Percentage Increase of Request

FY11 Base Budget for this Program	
FY11 Requested % Increase	0.0%

Department: Transportation

Contact: Richard Clarke

Line Item/Division:

Phone Number: 801 965-4120

CULVERT MANAGEMENT

Culvert Management

Research conducted by the Hydraulics Division, Research Division and Asset Management Division during the last six years demonstrated that many culverts throughout the state are approaching or beyond their design life or are near the end of their useful life due to corrosion, decay, pipe misalignment, and other failures. This request establishes a proactive culvert service life extension program (SLEP).

Request for equipment, completing a statewide condition inventory, and correcting the top priority deficient culverts : \$700,000

Total FY2011 Request - \$ 700,000

Prepared by:

L. Bernhard
801-243-9624

11 Aug 2009

REQUEST FOR INCREASE IN FUNDS FOR FY 2011 BUDGET

Prepare separate Forms 400 for each budget increase - Attach Form 400A with each Form 400

Description: Culvert Management and Rehabilitation		Priority No. 4
Program Name:	Check One: Ongoing <input checked="" type="checkbox"/> One-time <input type="checkbox"/>	Legislation Needed? NO
<p><i>Please provide a detailed description of this request including the problem or need this request will resolve. (all financial calculations should be included on Form 400A)</i></p> <p>Many culverts throughout the state are approaching or beyond their design life or are near the end of their useful life due to corrosion, decay, pipe misalignment, and other failures. Replacing culverts after failure is an expensive and disruptive process as a road is taken out of service to excavate and then replace the pipe. Culvert lining and other proactive culvert service life extension programs (SLEP) provide an attractive alternative to failure response. Research conducted the Research Division, Asset Management Group and Hydraulics from 2003 to 2009 identified the need for a detailed condition inventory an ongoing culvert remediation, repair or replacement program.</p> <p><i>What changes in program(s), service(s), expenditure(s), fee(s), etc. will be made if this request is not funded?</i></p> <p>Some culverts may continue to deteriorate without detection, only being discovered by pavement settlement, washouts, and similar high cost events.</p> <p><i>Indicate any additional funding above the amount being requested that might be required for this request in future years:</i></p> <p>An ongoing culvert service life extension program is proposed to correct culverts based on a statewide priority list. Continuing evaluation of aging culverts will add to the priority list. The culvert remediation list will be jointly managed by Maintenance Planning Division and Hydraulics Division. Each region will be provided access to the inventory so that top priority culverts can be remediated proactively and so that reconstruction or other construction projects can include appropriate action for existing culverts.</p> <p><i>What are the goal(s), objective(s), and performance measure(s) that directly relate to this request; and how will they be impacted?</i></p>		
<p>Please fill out this section if this request is mandatory (mandatory requests are more likely to be funded)</p> <p><i>What is the authority reference mandating this request? (i.e. federal law, state law, court action, governor's initiative)</i></p> <p><i>Describe why you think this request meets a mandatory definition. (public health and safety requests must constitute an emergency or critical need)</i></p>		

Department:**Transportation****Contact: Richard Clarke****Line Item/Division:****Phone Number: 801 965-4120**

REQUEST FOR INCREASE IN FUNDS FOR FY 2011 BUDGET - SUPPORTING DETAIL

Attach additional supporting detail if necessary

Description: Culvert Management and Rehabilitation		Priority No. 4
Program Name:	Check One: Ongoing <input checked="" type="checkbox"/> One-time <input type="checkbox"/>	Legislation Needed? NO
<i>Provide a three-year history and two-year projection of the workload, caseload, or other measure for this program or service:</i>		
FY 2008 Actual:	FY 2011 Projected Total:	\$700,000
FY 2009 Actual:	FY 2012 Projected Total:	\$0
FY 2010 Actual:	FY 2011 Projected % Increase:	-100.0%

*In the space below, show **computation details** outlining how the requested amount is determined. Include FTE needed & the payroll cost for each; additional space requirements; the types and amounts of equipment and related cost; the number of individuals served by the request and the annual service cost per individual; and similar data for all other expenses.*

During FY2011, a culvert camera, VCR/DVD recorder, mobile generator, and trailer will be bought for each region to be used in a detailed field inventory. The camera images will be recorded for evaluation by UDOT or consultant staff skilled in culvert maintenance who will recommend service life extension options. From this inventory a prioritized remediation list will be prepared. Funding is requested in FY2011 to begin SLEP on the highest priority culverts. During FY2012 and following years a routine culvert condition survey will be scheduled for the highest priority at risk culverts. Routine semi-annual MMQA inspections should discover culvert problems as they appear.

One-time equipment purchase: Culvert Camera and accessories @ \$100,000	2 ea	\$200,000
Complete Detailed Inventory and Culvert Evaluation	1 ea	\$300,000
Culvert Lining/SLEP Program	LS	\$200,000
Total FY2011 Request		\$700,000

Ongoing Culvert Lining/SLEP FY2012 >	\$400,000
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Budget Increase Summary

Financing	FY 2011
General Fund	
School Funds	
Transportation Fund	700,000
Federal Funds	
Dedicated Credits	
Restricted Funds	
Transfers (specify)	
Other (specify)	
Beginning Balance	
Total Financing	\$700,000

Expenditures	FY 2011
Personal Services	
In-State Travel	
Out-of-State Travel	
Current Expense	700,000
DP Current Expense	
DP Capital	
Capital Outlay	
Pass Thru/Other	
Total Expenditures	\$700,000
Positions:	

Percentage Increase of Request

FY11 Base Budget for this Program	
FY11 Requested % Increase	0.0%

Department: Transportation

Contact: Richard Clarke

Line Item/Division:

Phone Number: 801 965-4120

LANDS & BUILDINGS SUPPLEMENTAL INCREASE

Proposed Legislative Language

This is what the typical bill includes regarding the sale of lands and buildings; "The Legislature intends that any and all collections or cash income from the sale or salvage of land and buildings are to be lapsed to the Transportation Fund." This is what we propose the rewording should be;

The Legislature intends that any and all collections or cash income from the sale or salvage of land and buildings are to be lapsed to the Transportation Fund **except as follows; Proceeds from the sale of existing maintenance facilities shall be used for the express purpose of constructing maintenance stations. These funds are to be non-lapsing and may be used for the purchase of land for a maintenance station, purchase of an existing building to be used as a maintenance station or for the design and construction of a maintenance station. Funds not expended shall remain in the Transportation reserve fund held with DFCM.**

I think this says the basics of what we want and leaves it broad enough for interpretation of use.